

Supplementary Table 1: Clinicopathological characteristics of 6,035 patients and tumor

| Characteristics | All breast cancers N (%) | Luminal B subtype N (%) |
|---|-------------------------------------|------------------------------------|
| Patients' age | | |
| ≤ 50 | 1584 (34%) | 283 (25%) |
| > 50 | 3123 (66%) | 843 (75%) |
| Pathological tumor type | | |
| ductal | 2770 (77%) | 723 (81%) |
| lobular | 397 (11%) | 76 (8%) |
| other | 435 (12%) | 96 (11%) |
| Pathological grade | | |
| 1 | 548 (14%) | 65 (7%) |
| 2 | 1623 (40%) | 427 (46%) |
| 3 | 1847 (46%) | 446 (47%) |
| Pathological axillary lymph node status | | |
| negative | 2984 (58%) | 676 (55%) |
| positive | 2181 (42%) | 545 (45%) |
| Pathological tumor size | | |
| pT1 | 1878 (40%) | 398 (35%) |
| pT2 | 2443 (52%) | 664 (58%) |
| pT3 | 398 (8%) | 91 (7%) |
| Adjuvant chemotherapy | | |
| no | 3185 (72%) | 880 (79%) |
| yes | 1257 (28%) | 230 (21%) |
| Adjuvant hormone therapy | | |
| no | 2488 (57%) | 457 (41%) |
| yes | 1894 (43%) | 647 (59%) |
| Follow-up median, months (min-max) | 77 (1-382) | 68 (1-294) |
| DFS event (%) | 1759 (29%) | 473 (38%) |
| 5-year DFS | 75% [74-76] | 73% [71-76] |

Supplementary Table 2: Correlations of CINSARC classes with clinicopathological characteristics in Luminal A breast cancer patients

| Characteristics | N | CINSARC classes | | p-value |
|---|------|-----------------|-------------|-----------------|
| | | Low-risk | High-risk | |
| Patients' age | | | | 0.211 |
| ≤ 50 | 401 | 360 (29%) | 41 (35%) | |
| > 50 | 967 | 890 (71%) | 77 (65%) | |
| Pathological tumor type | | | | 0.938 |
| ductal | 700 | 642 (69%) | 58 (67%) | |
| lobular | 164 | 149 (16%) | 15 (17%) | |
| other | 155 | 142 (15%) | 13 (15%) | |
| Pathological grade | | | | 7.60E-05 |
| 1 | 335 | 317 (31%) | 18 (17%) | |
| 2 | 604 | 550 (53%) | 54 (51%) | |
| 3 | 206 | 172 (17%) | 34 (32%) | |
| Pathological axillary lymph node status | | | | 0.305 |
| negative | 919 | 846 (62%) | 73 (57%) | |
| positive | 583 | 527 (38%) | 56 (43%) | |
| Pathological tumor size | | | | 4.01E-02 |
| pT1 | 682 | 636 (50%) | 46 (38%) | |
| pT2 | 602 | 538 (43%) | 64 (53%) | |
| pT3 | 97 | 87 (7%) | 10 (8%) | |
| Adjuvant chemotherapy | | | | 0.665 |
| no | 1049 | 958 (82%) | 91 (84%) | |
| yes | 226 | 209 (18%) | 17 (16%) | |
| Adjuvant hormone therapy | | | | 0.687 |
| no | 647 | 590 (51%) | 57 (54%) | |
| yes | 611 | 562 (49%) | 49 (46%) | |
| Follow-up median, months (n) | 1753 | 83 (1-382) | 87 (1-281) | 1.48E-03 |
| DFS event (%) | 1753 | 305 (19%) | 46 (29%) | 6.92E-03 |
| 5-year DFS | 1753 | 88% [86-89] | 78% [72-86] | 3.31E-02 |

Supplementary Table 3: Univariate and multivariate Cox regression analyses for DFS in Luminal A breast cancer

| All patients | | Univariate | | | Multivariate | | |
|---|------------------------|------------|------------------|-----------------|--------------|------------------|-----------------|
| | | N | HR [95%CI] | p-value | N | HR [95%CI] | p-value |
| Patients' age | > 50 vs. ≤ 50 | 1368 | 1.30 [0.96-1.77] | 9.34E-02 | 934 | 1.13 [0.80-1.58] | 0.490 |
| Pathological tumor type | lobular vs. ductal | 1019 | 1.32 [0.84-2.09] | 0.158 | | | |
| | other vs. ductal | | 0.73 [0.45-1.18] | | | | |
| Pathological grade | 2 vs. 1 | 1145 | 1.08 [0.77-1.50] | 1.61E-02 | 934 | 1 [0.68-1.45] | 0.979 |
| | 3 vs. 1 | | 1.66 [1.13-2.43] | | 934 | 1.32 [0.85-2.04] | 0.213 |
| Pathological axillary lymph node status | positive vs. negative | 1502 | 1.41 [1.09-1.82] | 9.18E-03 | 934 | 1.09 [0.79-1.51] | 0.587 |
| Pathological tumor size | pT2 vs. pT1 | 1381 | 1.52 [1.16-2.01] | 1.19E-03 | 934 | 1.54 [1.12-2.13] | 8.66E-03 |
| | pT3 vs. pT1 | | 2.25 [1.28-3.96] | | 934 | 2.02 [0.96-4.25] | 0.064 |
| Adjuvant chemotherapy | yes vs. no | 1275 | 0.82 [0.50-1.36] | 0.443 | | | |
| Adjuvant hormone therapy | yes vs. no | 1258 | 1.00 [0.76-1.33] | 0.978 | | | |
| CINSARC classes | High-risk vs. Low-risk | 1753 | 1.40 [1.03-1.91] | 3.40E-02 | 934 | 1.21 [0.77-1.91] | 0.398 |

| Patients with adjuvant HT and without adjuvant CT | | Univariate | | | Multivariate | | |
|---|------------------------|------------|------------------|-----------------|--------------|------------|---------|
| | | N | HR [95%CI] | p-value | N | HR [95%CI] | p-value |
| Patients' age | > 50 vs. ≤ 50 | 493 | 1.13 [0.52-2.48] | 0.752 | | | |
| Pathological tumor type | lobular vs. ductal | 458 | 1.23 [0.58-2.59] | 0.479 | | | |
| | other vs. ductal | | 0.66 [0.30-1.47] | | | | |
| Pathological grade | 2 vs. 1 | 353 | 1.35 [0.64-2.85] | 0.117 | | | |
| | 3 vs. 1 | | 2.10 [0.97-4.58] | | | | |
| Pathological axillary lymph node status | positive vs. negative | 515 | 1.41 [0.88-2.26] | 0.155 | | | |
| Pathological tumor size | pT2 vs. pT1 | 492 | 1.77 [1.07-2.91] | 1.47E-02 | | | |
| | pT3 vs. pT1 | | 3.38 [1.29-8.83] | | | | |
| CINSARC classes | High-risk vs. Low-risk | 527 | 0.82 [0.36-1.90] | 0.648 | | | |

Supplementary Table 4: Comparison of frequency of mutations among the 387 genes mutated in at least 5/270 tested samples (TCGA) between the two CINSARC classes in Luminal B breast cancers.

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| PIK3CA | 93 | 34 | 36.56% | 177 | 51 | 28.81% | 0.70 [0.45-1.10] | 0.194 | 0.895 |
| TTN | 93 | 14 | 15.05% | 177 | 37 | 20.90% | 1.49 [0.85-2.63] | 0.245 | 0.895 |
| TP53 | 93 | 11 | 11.83% | 177 | 35 | 19.77% | 1.84 [1.00-3.39] | 0.102 | 0.895 |
| GATA3 | 93 | 16 | 17.20% | 177 | 32 | 18.08% | 1.06 [0.61-1.85] | 0.858 | 0.962 |
| CDH1 | 93 | 6 | 6.45% | 177 | 14 | 7.91% | 1.25 [0.54-2.86] | 0.664 | 0.910 |
| CROCCP2 | 93 | 4 | 4.30% | 177 | 14 | 7.91% | 1.91 [0.73-4.98] | 0.266 | 0.895 |
| MUC16 | 93 | 4 | 4.30% | 177 | 14 | 7.91% | 1.91 [0.73-4.98] | 0.266 | 0.895 |
| MAP3K1 | 93 | 10 | 10.75% | 177 | 12 | 6.78% | 0.60 [0.29-1.26] | 0.261 | 0.895 |
| MLL3 | 93 | 7 | 7.53% | 177 | 12 | 6.78% | 0.89 [0.40-2.01] | 0.82 | 0.939 |
| MUC5B | 93 | 5 | 5.38% | 177 | 11 | 6.21% | 1.17 [0.47-2.91] | 0.782 | 0.910 |
| HMCN1 | 93 | 4 | 4.30% | 177 | 10 | 5.65% | 1.33 [0.49-3.61] | 0.636 | 0.910 |
| FRG1B | 93 | 2 | 2.15% | 177 | 10 | 5.65% | 2.72 [0.75-9.92] | 0.202 | 0.895 |
| DYNC2H1 | 93 | 2 | 2.15% | 177 | 9 | 5.08% | 2.44 [0.66-8.98] | 0.261 | 0.895 |
| HRNR | 93 | 2 | 2.15% | 177 | 9 | 5.08% | 2.44 [0.66-8.98] | 0.261 | 0.895 |
| MUC12 | 93 | 5 | 5.38% | 177 | 8 | 4.52% | 0.83 [0.32-2.18] | 0.755 | 0.910 |
| NEB | 93 | 5 | 5.38% | 177 | 8 | 4.52% | 0.83 [0.32-2.18] | 0.755 | 0.910 |
| SYNE2 | 93 | 5 | 5.38% | 177 | 8 | 4.52% | 0.83 [0.32-2.18] | 0.755 | 0.910 |
| MUC4 | 93 | 4 | 4.30% | 177 | 8 | 4.52% | 1.05 [0.38-2.95] | 0.934 | 0.974 |
| PTEN | 93 | 4 | 4.30% | 177 | 8 | 4.52% | 1.05 [0.38-2.95] | 0.934 | 0.974 |
| ZFX4 | 93 | 4 | 4.30% | 177 | 8 | 4.52% | 1.05 [0.38-2.95] | 0.934 | 0.974 |
| HUWE1 | 93 | 2 | 2.15% | 177 | 8 | 4.52% | 2.15 [0.58-8.05] | 0.338 | 0.895 |
| RELN | 93 | 1 | 1.08% | 177 | 8 | 4.52% | 4.36 [0.75-25.25] | 0.169 | 0.895 |
| DMD | 93 | 5 | 5.38% | 177 | 7 | 3.95% | 0.72 [0.27-1.94] | 0.592 | 0.910 |
| FLG | 93 | 5 | 5.38% | 177 | 7 | 3.95% | 0.72 [0.27-1.94] | 0.592 | 0.910 |
| MAP2K4 | 93 | 5 | 5.38% | 177 | 7 | 3.95% | 0.72 [0.27-1.94] | 0.592 | 0.910 |
| RYR3 | 93 | 4 | 4.30% | 177 | 7 | 3.95% | 0.92 [0.32-2.63] | 0.891 | 0.974 |
| CDK12 | 93 | 1 | 1.08% | 177 | 7 | 3.95% | 3.79 [0.64-22.27] | 0.216 | 0.895 |
| MYH11 | 93 | 1 | 1.08% | 177 | 7 | 3.95% | 3.79 [0.64-22.27] | 0.216 | 0.895 |
| NCOR1 | 93 | 7 | 7.53% | 177 | 6 | 3.39% | 0.43 [0.17-1.10] | 0.141 | 0.895 |
| OBSCN | 93 | 7 | 7.53% | 177 | 6 | 3.39% | 0.43 [0.17-1.10] | 0.141 | 0.895 |
| PCLO | 93 | 6 | 6.45% | 177 | 6 | 3.39% | 0.51 [0.19-1.35] | 0.254 | 0.895 |
| SPTA1 | 93 | 5 | 5.38% | 177 | 6 | 3.39% | 0.62 [0.22-1.71] | 0.437 | 0.895 |
| FAM157B | 93 | 4 | 4.30% | 177 | 6 | 3.39% | 0.78 [0.26-2.31] | 0.707 | 0.910 |
| FAT3 | 93 | 4 | 4.30% | 177 | 6 | 3.39% | 0.78 [0.26-2.31] | 0.707 | 0.910 |
| SPEN | 93 | 4 | 4.30% | 177 | 6 | 3.39% | 0.78 [0.26-2.31] | 0.707 | 0.910 |
| USH2A | 93 | 4 | 4.30% | 177 | 6 | 3.39% | 0.78 [0.26-2.31] | 0.707 | 0.910 |
| CHD6 | 93 | 3 | 3.23% | 177 | 6 | 3.39% | 1.05 [0.32-3.43] | 0.943 | 0.974 |
| PRUNE2 | 93 | 3 | 3.23% | 177 | 6 | 3.39% | 1.05 [0.32-3.43] | 0.943 | 0.974 |
| CADPS | 93 | 2 | 2.15% | 177 | 6 | 3.39% | 1.60 [0.41-6.22] | 0.571 | 0.910 |
| DNAH7 | 93 | 2 | 2.15% | 177 | 6 | 3.39% | 1.60 [0.41-6.22] | 0.571 | 0.910 |
| FAT2 | 93 | 2 | 2.15% | 177 | 6 | 3.39% | 1.60 [0.41-6.22] | 0.571 | 0.910 |
| LRP2 | 93 | 2 | 2.15% | 177 | 6 | 3.39% | 1.60 [0.41-6.22] | 0.571 | 0.910 |
| RYR2 | 93 | 2 | 2.15% | 177 | 6 | 3.39% | 1.60 [0.41-6.22] | 0.571 | 0.910 |
| TBX3 | 93 | 2 | 2.15% | 177 | 6 | 3.39% | 1.60 [0.41-6.22] | 0.571 | 0.910 |
| DNHD1 | 93 | 1 | 1.08% | 177 | 6 | 3.39% | 3.23 [0.54-19.32] | 0.281 | 0.895 |
| DNM1P46 | 93 | 1 | 1.08% | 177 | 6 | 3.39% | 3.23 [0.54-19.32] | 0.281 | 0.895 |
| HIST1H3B | 93 | 1 | 1.08% | 177 | 6 | 3.39% | 3.23 [0.54-19.32] | 0.281 | 0.895 |
| KALRN | 93 | 1 | 1.08% | 177 | 6 | 3.39% | 3.23 [0.54-19.32] | 0.281 | 0.895 |
| NRXN2 | 93 | 1 | 1.08% | 177 | 6 | 3.39% | 3.23 [0.54-19.32] | 0.281 | 0.895 |
| SETDB1 | 93 | 1 | 1.08% | 177 | 6 | 3.39% | 3.23 [0.54-19.32] | 0.281 | 0.895 |
| XIST | 93 | 1 | 1.08% | 177 | 6 | 3.39% | 3.23 [0.54-19.32] | 0.281 | 0.895 |
| FAM47C | 93 | 0 | 0.00% | 177 | 6 | 3.39% | 3e+07 [0e+00-Inf] | 0.993 | 0.993 |
| APOB | 93 | 6 | 6.45% | 177 | 5 | 2.82% | 0.42 [0.15-1.17] | 0.163 | 0.895 |
| DST | 93 | 5 | 5.38% | 177 | 5 | 2.82% | 0.51 [0.18-1.48] | 0.299 | 0.895 |
| MACF1 | 93 | 5 | 5.38% | 177 | 5 | 2.82% | 0.51 [0.18-1.48] | 0.299 | 0.895 |
| PTPRD | 93 | 5 | 5.38% | 177 | 5 | 2.82% | 0.51 [0.18-1.48] | 0.299 | 0.895 |
| FRMPD4 | 93 | 4 | 4.30% | 177 | 5 | 2.82% | 0.65 [0.21-1.99] | 0.524 | 0.910 |
| LRBA | 93 | 4 | 4.30% | 177 | 5 | 2.82% | 0.65 [0.21-1.99] | 0.524 | 0.910 |
| MAP2 | 93 | 4 | 4.30% | 177 | 5 | 2.82% | 0.65 [0.21-1.99] | 0.524 | 0.910 |
| PCNXL2 | 93 | 4 | 4.30% | 177 | 5 | 2.82% | 0.65 [0.21-1.99] | 0.524 | 0.910 |
| ANK3 | 93 | 3 | 3.23% | 177 | 5 | 2.82% | 0.87 [0.26-2.95] | 0.854 | 0.961 |
| ERBB2 | 93 | 3 | 3.23% | 177 | 5 | 2.82% | 0.87 [0.26-2.95] | 0.854 | 0.961 |
| FBN3 | 93 | 3 | 3.23% | 177 | 5 | 2.82% | 0.87 [0.26-2.95] | 0.854 | 0.961 |
| LRP1 | 93 | 3 | 3.23% | 177 | 5 | 2.82% | 0.87 [0.26-2.95] | 0.854 | 0.961 |
| RAPGEF6 | 93 | 3 | 3.23% | 177 | 5 | 2.82% | 0.87 [0.26-2.95] | 0.854 | 0.961 |
| SYNE1 | 93 | 3 | 3.23% | 177 | 5 | 2.82% | 0.87 [0.26-2.95] | 0.854 | 0.961 |
| ADAMTSL1 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| CMYA5 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| CSMD2 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| CUBN | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| DNAH11 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| FREM3 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| HECTD4 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| KIAA1109 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| MST1P9 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| MTOR | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| NF1 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| SDHAP1 | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| SEMA5A | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| TPR | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| ZAN | 93 | 2 | 2.15% | 177 | 5 | 2.82% | 1.32 [0.33-5.32] | 0.741 | 0.910 |
| ASH1L | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| C5orf42 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| COL4A4 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| CRNKL1 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| ERCC6 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| HECW1 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| KIAA2022 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| LARP1 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| MYH8 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| MYO6 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| NES | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| PAPPA | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| PLCE1 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| SLX4 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| TAF1L | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| ZFP64 | 93 | 1 | 1.08% | 177 | 5 | 2.82% | 2.67 [0.44-16.41] | 0.372 | 0.895 |
| ABCC8 | 93 | 0 | 0.00% | 177 | 5 | 2.82% | 2.5e+07 [0e+00-Inf] | 0.993 | 0.993 |
| ACTN4 | 93 | 0 | 0.00% | 177 | 5 | 2.82% | 2.5e+07 [0e+00-Inf] | 0.993 | 0.993 |
| CNOT3 | 93 | 0 | 0.00% | 177 | 5 | 2.82% | 2.5e+07 [0e+00-Inf] | 0.993 | 0.993 |
| COL6A3 | 93 | 0 | 0.00% | 177 | 5 | 2.82% | 2.5e+07 [0e+00-Inf] | 0.993 | 0.993 |
| HSPG2 | 93 | 0 | 0.00% | 177 | 5 | 2.82% | 2.5e+07 [0e+00-Inf] | 0.993 | 0.993 |
| TBC1D8B | 93 | 0 | 0.00% | 177 | 5 | 2.82% | 2.5e+07 [0e+00-Inf] | 0.993 | 0.993 |
| ZNF804B | 93 | 0 | 0.00% | 177 | 5 | 2.82% | 2.5e+07 [0e+00-Inf] | 0.993 | 0.993 |
| CSMD1 | 93 | 5 | 5.38% | 177 | 4 | 2.26% | 0.41 [0.13-1.25] | 0.188 | 0.895 |
| FCGBP | 93 | 5 | 5.38% | 177 | 4 | 2.26% | 0.41 [0.13-1.25] | 0.188 | 0.895 |
| GPR98 | 93 | 5 | 5.38% | 177 | 4 | 2.26% | 0.41 [0.13-1.25] | 0.188 | 0.895 |
| C9orf174 | 93 | 4 | 4.30% | 177 | 4 | 2.26% | 0.51 [0.16-1.68] | 0.355 | 0.895 |
| DYNC1H1 | 93 | 4 | 4.30% | 177 | 4 | 2.26% | 0.51 [0.16-1.68] | 0.355 | 0.895 |
| GNAS | 93 | 4 | 4.30% | 177 | 4 | 2.26% | 0.51 [0.16-1.68] | 0.355 | 0.895 |
| MADD | 93 | 4 | 4.30% | 177 | 4 | 2.26% | 0.51 [0.16-1.68] | 0.355 | 0.895 |
| MYH7 | 93 | 4 | 4.30% | 177 | 4 | 2.26% | 0.51 [0.16-1.68] | 0.355 | 0.895 |
| RP1 | 93 | 4 | 4.30% | 177 | 4 | 2.26% | 0.51 [0.16-1.68] | 0.355 | 0.895 |
| RYR1 | 93 | 4 | 4.30% | 177 | 4 | 2.26% | 0.51 [0.16-1.68] | 0.355 | 0.895 |
| VCAN | 93 | 4 | 4.30% | 177 | 4 | 2.26% | 0.51 [0.16-1.68] | 0.355 | 0.895 |
| AKAP9 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| ATM | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| CIT | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| CTCF | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| DNAH10 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| DNAH9 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| FAT1 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| FLNB | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| GOLGA6L2 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| HERC2 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| NRXN1 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| PAPPA2 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| PLXNA4 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| RUNX1 | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| SCN10A | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| TMEM132D | 93 | 3 | 3.23% | 177 | 4 | 2.26% | 0.69 [0.19-2.48] | 0.637 | 0.910 |
| ABR | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| ANKRD30BL | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| APOBR | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| ATRX | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| C1orf173 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| CENPE | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| CHD8 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| COL12A1 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| CSMD3 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| DNAH17 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| EPG5 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| HEATR7B2 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| LRP4 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| MALAT1 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| MICAL3 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| MYO5B | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| NUP98 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| PARP4 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| PCDH19 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| PIK3R1 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| PIWIL1 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| PTPRB | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| SHROOM2 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| SRCAP | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| TG | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| VPS13B | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| ZNF814 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| ZNF831 | 93 | 2 | 2.15% | 177 | 4 | 2.26% | 1.05 [0.25-4.44] | 0.954 | 0.974 |
| ADAMTS20 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| ATP2A1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| CACNA1A | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| CACNA1C | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| CDH12 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| CEP192 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| CNTN6 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| COL19A1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| COL4A6 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| COL5A1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| CR1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| CRIPAK | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| DHX57 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| DNAH2 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| DNAH5 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| ERBB4 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| EYS | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| F5 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| FAM186A | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| FAT4 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| FGFR2 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| FNDC1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| HECTD1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| HS6ST1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| KIAA0232 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| KIAA1210 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| KIF1B | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| LETM1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| MAPRE3 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| MAST4 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| MED14 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| MYADML | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| OBSL1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| PCDHA11 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| PRKCE | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| REV3L | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| RPS6KA1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| SCN1A | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| SELP | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| SMARCC2 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| SOGA1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| UBE4A | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| VCPPI1 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| VWDE | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| ZFYVE19 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| ZNF292 | 93 | 1 | 1.08% | 177 | 4 | 2.26% | 2.13 [0.33-13.54] | 0.502 | 0.895 |
| ATP10B | 93 | 5 | 5.38% | 177 | 3 | 1.69% | 0.30 [0.09-1.03] | 0.108 | 0.895 |
| PKHD1L1 | 93 | 5 | 5.38% | 177 | 3 | 1.69% | 0.30 [0.09-1.03] | 0.108 | 0.895 |
| SACS | 93 | 5 | 5.38% | 177 | 3 | 1.69% | 0.30 [0.09-1.03] | 0.108 | 0.895 |
| ANK2 | 93 | 4 | 4.30% | 177 | 3 | 1.69% | 0.38 [0.11-1.37] | 0.216 | 0.895 |
| ANKRD12 | 93 | 4 | 4.30% | 177 | 3 | 1.69% | 0.38 [0.11-1.37] | 0.216 | 0.895 |
| CCDC144A | 93 | 4 | 4.30% | 177 | 3 | 1.69% | 0.38 [0.11-1.37] | 0.216 | 0.895 |
| ODZ2 | 93 | 4 | 4.30% | 177 | 3 | 1.69% | 0.38 [0.11-1.37] | 0.216 | 0.895 |
| RB1 | 93 | 4 | 4.30% | 177 | 3 | 1.69% | 0.38 [0.11-1.37] | 0.216 | 0.895 |
| TANC2 | 93 | 4 | 4.30% | 177 | 3 | 1.69% | 0.38 [0.11-1.37] | 0.216 | 0.895 |
| TNRC18 | 93 | 4 | 4.30% | 177 | 3 | 1.69% | 0.38 [0.11-1.37] | 0.216 | 0.895 |
| UBR4 | 93 | 4 | 4.30% | 177 | 3 | 1.69% | 0.38 [0.11-1.37] | 0.216 | 0.895 |
| AKD1 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| ARID1A | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| CDC42BPA | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| CELSR3 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| DNAH12 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| DOCK11 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| F8 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| FAM47B | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| FMN2 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| GON4L | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| HEPH | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| HERC1 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| ITPR1 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| MDN1 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| MED12 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| MLL | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| MYOF | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| ODZ4 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| PDZD2 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| PHF3 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| PKHD1 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| PLCH1 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| POM121 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| RPGR | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| SCN8A | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| SH3PXD2A | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| SPHKAP | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| TBC1D3P5 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| TLR7 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| TNS1 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| ZCCHC6 | 93 | 3 | 3.23% | 177 | 3 | 1.69% | 0.52 [0.13-2.01] | 0.425 | 0.895 |
| ABCA9 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| ABCB11 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| ADCY7 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| AHNAK2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| BRWD3 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| CACNA1D | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| CCAR1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| CDH23 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| CFH | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| CLEC16A | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| CNTLN | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| COL6A5 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| DCHS1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| DENND1B | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| EFCAB5 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| FANCD2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| FBXW7 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| FREM2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| FRMD4A | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| FRMPD2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| GLYR1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| GRHL2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| GUCY2F | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| INADL | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| INPPL1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| KCNA1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| KCNT2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| KDM2A | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| KIF1A | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| KSR1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| LAMB1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| LRIG2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| LRPPRC | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| MCM3AP | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| MLL2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| MLLT10 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| MUC17 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| MYO3A | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| NAALADL2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| NBEAL1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| NIN | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| NLRP9 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| NPAS4 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| NYNRIN | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| OCRL | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| OTOF | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| PCDHA8 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| PLCL2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| PLCZ1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| PREX2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| PRKCQ | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| PRPF8 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| PTPN22 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| SCN11A | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| SCN3A | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| SDK1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| SHANK2 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| SIPA1L3 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| SLCO1B3 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| STARD8 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| SVEP1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| TBC1D4 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| TNKS1BP1 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| TRPM3 | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| UACA | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| UNC5D | 93 | 2 | 2.15% | 177 | 3 | 1.69% | 0.78 [0.17-3.57] | 0.792 | 0.910 |
| ABCA13 | 93 | 5 | 5.38% | 177 | 2 | 1.13% | 0.20 [0.05-0.81] | 0.0582 | 0.895 |
| VPS13C | 93 | 5 | 5.38% | 177 | 2 | 1.13% | 0.20 [0.05-0.81] | 0.0582 | 0.895 |
| AFF2 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| ALMS1 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| COL27A1 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| CPAMD8 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| DCHS2 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| DNAH1 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| KIAA0430 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| MYCBP2 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| PRRX1 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| PTPRT | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| TCHH | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| TP53BP1 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| VWA3B | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| WNK3 | 93 | 4 | 4.30% | 177 | 2 | 1.13% | 0.25 [0.06-1.07] | 0.118 | 0.895 |
| ADGB | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| AFF3 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| ARHGAP12 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| ATG9B | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| CBFB | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| CDH20 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| CDH9 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| CEP350 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| CHD1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| DPP10 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| ELTD1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| FREM1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| FRYL | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| GRIK1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| GTF3C1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| IQSEC2 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| ITPR3 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| JAK1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| KCNK18 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| KIAA1211 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| MYH10 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| MYO18B | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| NLRP2 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| ODZ1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| PKD1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| PLA2G4D | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| PLEKHG2 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| RBM12 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| RNF111 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| SPTBN2 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| SSH1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| TEP1 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| TRAPP8 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| USP25 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| WDR66 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| XDH | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| XIRP2 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| ZCCHC11 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| ZP4 | 93 | 3 | 3.23% | 177 | 2 | 1.13% | 0.34 [0.075-1.56] | 0.246 | 0.895 |
| MXRA5 | 93 | 6 | 6.45% | 177 | 1 | 0.56% | 0.082 [0.014-0.49] | 2.18E-02 | 0.895 |
| SCN2A | 93 | 6 | 6.45% | 177 | 1 | 0.56% | 0.082 [0.014-0.49] | 2.18E-02 | 0.895 |
| SETX | 93 | 6 | 6.45% | 177 | 1 | 0.56% | 0.082 [0.014-0.49] | 2.18E-02 | 0.895 |
| LRP1B | 93 | 5 | 5.38% | 177 | 1 | 0.56% | 0.10 [0.016-0.61] | 3.69E-02 | 0.895 |
| PRKDC | 93 | 5 | 5.38% | 177 | 1 | 0.56% | 0.10 [0.016-0.61] | 3.69E-02 | 0.895 |
| ASTN1 | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| DNAJC13 | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| DOCK8 | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| FN1 | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>GGT3P</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| <i>KIAA1731</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| <i>PCDH9</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| <i>PCNT</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| <i>SDK2</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| <i>SPATA13</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| <i>SSPO</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| <i>TEX15</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| <i>UBC</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |
| <i>UBE4B</i> | 93 | 4 | 4.30% | 177 | 1 | 0.56% | 0.13 [0.02-0.81] | 0.0661 | 0.895 |

*, logistic regression

Supplementary Table 5: Comparison of frequency of amplifications among the 3,842 genes altered in at least 5/297 tested samples (TCGA) between the two CINSARC classes in Luminal B breast cancers.

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| RBFOX1 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| AANAT | 101 | 3 | 2.97% | 196 | 16 | 8.16% | 2.90 [1.01-8.34] | 0.097 | 0.507 |
| AATF | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| AATK | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| ABAT | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| ABCA10 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| ABCA17P | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| ABCA3 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| ABCA5 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| ABCA6 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ABCA8 | 101 | 7 | 6.93% | 196 | 19 | 9.69% | 1.44 [0.68-3.07] | 0.427 | 0.791 |
| ABCA9 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ABCB10 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ABCB5 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| ABCC12 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ABCC1 | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| ABCC3 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| ABCC5 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| ABCC6P1 | 101 | 8 | 7.92% | 196 | 5 | 2.55% | 0.30 [0.12-0.80] | 4.16E-02 | 0.507 |
| ABCC6P2 | 101 | 11 | 10.89% | 196 | 3 | 1.53% | 0.13 [0.043-0.38] | 1.89E-03 | 0.507 |
| ABCC6 | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| ABCC8 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ABCF3 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| ABHD15 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| ABHD2 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| ABI3 | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| ABL2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| ABRA | 101 | 17 | 16.83% | 196 | 52 | 26.53% | 1.78 [1.07-2.98] | 0.063 | 0.507 |
| ACACA | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| ACAN | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| ACAP2 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| ACBD3 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ACBD6 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ACER3 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| ACE | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| ACIN1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ACOT1 | 101 | 12 | 11.88% | 196 | 24 | 12.24% | 1.03 [0.56-1.92] | 0.928 | 1.000 |
| ACOT8 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ACOX1 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| ACP6 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| ACSF2 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| ACSM1 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| ACSM2A | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| ACSM2B | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| ACSM3 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| ACSM5 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| ACSS2 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| ACSS3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ACTA1 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ACTG1 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| ACTL6A | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| ACTN2 | 101 | 7 | 6.93% | 196 | 19 | 9.69% | 1.44 [0.68-3.07] | 0.427 | 0.791 |
| ACTN3 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| ACTR5 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| ACY3 | 101 | 10 | 9.90% | 196 | 19 | 9.69% | 0.98 [0.50-1.92] | 0.955 | 1.000 |
| ADAM15 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| ADAM18 | 101 | 14 | 13.86% | 196 | 37 | 18.88% | 1.45 [0.83-2.53] | 0.279 | 0.650 |
| ADAM2 | 101 | 13 | 12.87% | 196 | 32 | 16.33% | 1.32 [0.74-2.37] | 0.432 | 0.798 |
| ADAM30 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ADAM32 | 101 | 12 | 11.88% | 196 | 36 | 18.37% | 1.67 [0.93-3.01] | 0.153 | 0.535 |
| ADAM3A | 101 | 25 | 24.75% | 196 | 53 | 27.04% | 1.13 [0.71-1.79] | 0.671 | 0.943 |
| ADAM5 | 101 | 17 | 16.83% | 196 | 35 | 17.86% | 1.07 [0.63-1.83] | 0.826 | 1.000 |
| ADAM9 | 101 | 12 | 11.88% | 196 | 40 | 20.41% | 1.90 [1.06-3.41] | 0.070 | 0.507 |
| ADAMTS4 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| ADAMTSL4 | 101 | 9 | 8.91% | 196 | 17 | 8.67% | 0.97 [0.48-1.97] | 0.945 | 1.000 |
| ADAP2 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| ADAR | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| ADA | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| ADCK2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ADCK5 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| ADCY10 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| ADCY8 | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| ADCY9 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| ADCYAP1R1 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| ADHFE1 | 101 | 15 | 14.85% | 196 | 39 | 19.90% | 1.42 [0.82-2.46] | 0.287 | 0.650 |
| ADIG | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ADIPOR1 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| ADK | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| ADNP | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| ADORA1 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| ADRB3 | 101 | 10 | 9.90% | 196 | 51 | 26.02% | 3.20 [1.74-5.89] | 1.70E-03 | 0.507 |
| ADRM1 | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| ADSS | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| AEN | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| AFMID | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| AFM | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| AFP | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| AGAP2 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| AGAP5 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| AGBL1 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| AGT | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| AHCTF1 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| AHSP | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| AIDA | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| AIM2 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| AIP | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| AKAP10 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| AKAP13 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| AKAP1 | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| AKAP6 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| AKT3 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| ALB | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| ALDH3A1 | 101 | 4 | 3.96% | 196 | 1 | 0.51% | 0.12 [0.02-0.79] | 0.064 | 0.507 |
| ALDH3A2 | 101 | 4 | 3.96% | 196 | 1 | 0.51% | 0.12 [0.02-0.79] | 0.064 | 0.507 |
| ALDH3B1 | 101 | 9 | 8.91% | 196 | 21 | 10.71% | 1.23 [0.62-2.44] | 0.626 | 0.907 |
| ALDH3B2 | 101 | 9 | 8.91% | 196 | 19 | 9.69% | 1.10 [0.55-2.21] | 0.827 | 1.000 |
| ALDH9A1 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| ALDOA | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ALDOC | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| ALG1 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| ALG3 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| ALG8 | 101 | 9 | 8.91% | 196 | 18 | 9.18% | 1.03 [0.51-2.09] | 0.938 | 1.000 |
| ALPK3 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| CCL18 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| AMDHD2 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| AMELY | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AMZ2P1 | 101 | 8 | 7.92% | 196 | 23 | 11.73% | 1.55 [0.76-3.14] | 0.311 | 0.680 |
| AMZ2 | 101 | 10 | 9.90% | 196 | 27 | 13.78% | 1.45 [0.76-2.77] | 0.340 | 0.716 |
| ANAPC11 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| ANGEL2 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| ANGPT1 | 101 | 15 | 14.85% | 196 | 51 | 26.02% | 2.02 [1.18-3.43] | 3.03E-02 | 0.507 |
| ANGPTL1 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| ANK1 | 101 | 15 | 14.85% | 196 | 32 | 16.33% | 1.12 [0.64-1.96] | 0.742 | 0.996 |
| ANK3 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| ANKFN1 | 101 | 9 | 8.91% | 196 | 21 | 10.71% | 1.23 [0.62-2.44] | 0.626 | 0.907 |
| ANKRD13B | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| ANKRD13D | 101 | 10 | 9.90% | 196 | 16 | 8.16% | 0.81 [0.40-1.62] | 0.616 | 0.898 |
| ANKRD17 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| ANKRD34A | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| ANKRD35 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| ANKRD36BP1 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| ANKRD40 | 101 | 4 | 3.96% | 196 | 21 | 10.71% | 2.91 [1.16-7.31] | 0.056 | 0.507 |
| ANKRD45 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| ANKRD46 | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| ANKS3 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| ANKS4B | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| ANO1 | 101 | 21 | 20.79% | 196 | 57 | 29.08% | 1.56 [0.97-2.52] | 0.126 | 0.535 |
| ANO5 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| ANP32E | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| ANPEP | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| ANTXR1 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| ANXA13 | 101 | 14 | 13.86% | 196 | 57 | 29.08% | 2.55 [1.49-4.37] | 4.36E-03 | 0.507 |
| ANXA7 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| ANXA9 | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| AP2B1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| AP2M1 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| AP3B2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| AP3M1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| AP3M2 | 101 | 14 | 13.86% | 196 | 33 | 16.84% | 1.26 [0.71-2.22] | 0.506 | 0.805 |
| AP3S2 | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| AP4S1 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| APCDD1L | 101 | 8 | 7.92% | 196 | 17 | 8.67% | 1.10 [0.53-2.30] | 0.825 | 1.000 |
| APCS | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| APH1A | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| APOA2 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| APOBR | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| APOBEC4 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| APOD | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| APOH | 101 | 9 | 8.91% | 196 | 25 | 12.76% | 1.49 [0.76-2.93] | 0.327 | 0.712 |
| APPBP2 | 101 | 8 | 7.92% | 196 | 34 | 17.35% | 2.44 [1.23-4.82] | 3.12E-02 | 0.507 |
| AQP10 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| AQP11 | 101 | 10 | 9.90% | 196 | 22 | 11.22% | 1.15 [0.59-2.23] | 0.728 | 0.986 |
| AQP1 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| AQP8 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ARAP1 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| ARC | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| AREG | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| ARF1 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| ARFGAP1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| ARFGEF1 | 101 | 15 | 14.85% | 196 | 39 | 19.90% | 1.42 [0.82-2.46] | 0.287 | 0.650 |
| ARFGEF2 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| ARFRP1 | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| ARHGAP17 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| ARHGAP23 | 101 | 5 | 4.95% | 196 | 7 | 3.57% | 0.71 [0.27-1.90] | 0.569 | 0.855 |
| ARHGAP30 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| ARHGAP39 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| ARHGAP5 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| ARHGDI1 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| ARHGDI2 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| ARHGFE1 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| ARHGFE2 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| ARHGFE3 | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| ARID3C | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ARID4B | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| ARL16 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| ARL17B | 101 | 8 | 7.92% | 196 | 10 | 5.10% | 0.63 [0.28-1.40] | 0.338 | 0.716 |
| ARL5C | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| ARL6IP1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ARL8A | 101 | 8 | 7.92% | 196 | 24 | 12.24% | 1.62 [0.80-3.28] | 0.258 | 0.635 |
| ARMC1 | 101 | 15 | 14.85% | 196 | 35 | 17.86% | 1.25 [0.72-2.17] | 0.512 | 0.805 |
| ARMC2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ARMC5 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| ARMC7 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| ARNT2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| ARNT | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| ARPC5 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| ARRB1 | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| ARRDC4 | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| ARSG | 101 | 9 | 8.91% | 196 | 28 | 14.29% | 1.70 [0.88-3.31] | 0.188 | 0.553 |
| ART3 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| ARV1 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ASAP1-IT1 | 101 | 15 | 14.85% | 196 | 60 | 30.61% | 2.53 [1.49-4.28] | 3.72E-03 | 0.507 |
| ASAP1 | 101 | 15 | 14.85% | 196 | 58 | 29.59% | 2.41 [1.42-4.08] | 6.08E-03 | 0.507 |
| ASB7 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ASH1L | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| ASH2L | 101 | 11 | 10.89% | 196 | 47 | 23.98% | 2.58 [1.43-4.67] | 8.55E-03 | 0.507 |
| ASPHD1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ASPH | 101 | 15 | 14.85% | 196 | 32 | 16.33% | 1.12 [0.64-1.96] | 0.742 | 0.996 |
| ASPM | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| ASPSR1 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| ASTN1 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| ATAD2 | 101 | 14 | 13.86% | 196 | 58 | 29.59% | 2.61 [1.52-4.48] | 3.40E-03 | 0.507 |
| ATAD5 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| ATF3 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| ATF6 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| ATF7IP2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ATG16L2 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| ATG5 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| ATP11B | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| ATP13A3 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| ATP13A4 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| ATP13A5 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| ATP1A2 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| ATP1A4 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| ATP1B1 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| ATP2A1 | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| ATP2B4 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| ATP6V0C | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| ATP6V0D2 | 101 | 18 | 17.82% | 196 | 46 | 23.47% | 1.41 [0.85-2.35] | 0.263 | 0.643 |
| ATP6V1C1 | 101 | 16 | 15.84% | 196 | 56 | 28.57% | 2.13 [1.27-3.57] | 1.67E-02 | 0.507 |
| ATP6V1G3 | 101 | 5 | 4.95% | 196 | 22 | 11.22% | 2.43 [1.05-5.63] | 0.083 | 0.507 |
| ATP6V1H | 101 | 12 | 11.88% | 196 | 31 | 15.82% | 1.39 [0.77-2.54] | 0.363 | 0.738 |
| ATP8B2 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| ATP9A | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ATXN2L | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| ATXN7L3B | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| AURKA | 101 | 8 | 7.92% | 196 | 13 | 6.63% | 0.83 [0.38-1.78] | 0.682 | 0.943 |
| AVIL | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| AVL9 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| AVPR1A | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| AVPR1B | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| AXIN1 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| AXIN2 | 101 | 9 | 8.91% | 196 | 27 | 13.78% | 1.63 [0.84-3.19] | 0.227 | 0.599 |
| AZIN1 | 101 | 16 | 15.84% | 196 | 56 | 28.57% | 2.13 [1.27-3.57] | 1.67E-02 | 0.507 |
| B3GALNT2 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| B3GALT2 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| B3GNT5 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| B3GNT6 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| B3GNTL1 | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| B4GALNT2 | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| B4GALT3 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| B4GALT5 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| B9D1 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| BAALC | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| BAG4 | 101 | 11 | 10.89% | 196 | 47 | 23.98% | 2.58 [1.43-4.67] | 8.55E-03 | 0.507 |
| BAHCC1 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| BAIAP2 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| BAIAP3 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| PRRC2C | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| BATF3 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| BAZ1A | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| BBS10 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| BBS1 | 101 | 5 | 4.95% | 196 | 11 | 5.61% | 1.14 [0.46-2.84] | 0.811 | 1.000 |
| BBS9 | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| BCAN | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| BCAR4 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| BCAS1 | 101 | 11 | 10.89% | 196 | 22 | 11.22% | 1.03 [0.54-1.97] | 0.931 | 1.000 |
| BCAS3 | 101 | 6 | 5.94% | 196 | 33 | 16.84% | 3.21 [1.50-6.86] | 1.17E-02 | 0.507 |
| BCAS4 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| BCKDK | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| BCL2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| BCL7C | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| NBEAP1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| BCL9 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| BCORP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BDH1 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| BEND3 | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| BEST3 | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| LINC00293 | 101 | 12 | 11.88% | 196 | 26 | 13.27% | 1.13 [0.61-2.09] | 0.735 | 0.993 |
| BFAR | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| BGLAP | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| BHLHE22 | 101 | 14 | 13.86% | 196 | 35 | 17.86% | 1.35 [0.77-2.38] | 0.381 | 0.750 |
| BHLHE23 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| BIRC5 | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| BIRC7 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| BLCAP | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| BLMH | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| BLM | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| BLZF1 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| BMP7 | 101 | 8 | 7.92% | 196 | 17 | 8.67% | 1.10 [0.53-2.30] | 0.825 | 1.000 |
| BMPER | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| BMS1P4 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| BNIP1 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| BOD1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| BOLA1 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| BOLA2 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| BOP1 | 101 | 19 | 18.81% | 196 | 50 | 25.51% | 1.48 [0.90-2.43] | 0.197 | 0.570 |
| BPI | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| BPNT1 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| BPTF | 101 | 10 | 9.90% | 196 | 27 | 13.78% | 1.45 [0.76-2.77] | 0.340 | 0.716 |
| BPY2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BRAF | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| BREA2 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| BRF2 | 101 | 11 | 10.89% | 196 | 51 | 26.02% | 2.88 [1.60-5.19] | 3.19E-03 | 0.507 |
| BRIP1 | 101 | 9 | 8.91% | 196 | 29 | 14.80% | 1.78 [0.91-3.44] | 0.155 | 0.535 |
| BRMS1L | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| BRMS1 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| MPC2 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| BRSK1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SLX4 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| BTBD17 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| BTC | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| BTG1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| BTG2 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| BTNL3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| BVES | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| C10orf105 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| ZNF503-AS2 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| C10orf55 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| C11orf24 | 101 | 8 | 7.92% | 196 | 18 | 9.18% | 1.18 [0.57-2.44] | 0.715 | 0.972 |
| KIAA1549L | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ANAPC15 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| C11orf58 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| LAMTOR1 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| PPP1R32 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| AAMDC | 101 | 10 | 9.90% | 196 | 22 | 11.22% | 1.15 [0.59-2.23] | 0.728 | 0.986 |
| C11orf80 | 101 | 8 | 7.92% | 196 | 13 | 6.63% | 0.83 [0.38-1.78] | 0.682 | 0.943 |
| C11orf86 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| C12orf29 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| C12orf50 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| C12orf66 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| C12orf74 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| DTD2 | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| ARHGAP5-AS1 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| SPTSSA | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| IGBP1P1 | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| C15orf32 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HEXA-AS1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TICRR | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| DNM1P46 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| GDPGP1 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| TSR3 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| PAGR1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| C16orf54 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| C16orf58 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| CDIP1 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| FOPNL | 101 | 8 | 7.92% | 196 | 3 | 1.53% | 0.18 [0.058-0.56] | 1.30E-02 | 0.507 |
| METTL22 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| C16orf71 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| C16orf72 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| MEIOB | 101 | 7 | 6.93% | 196 | 5 | 2.55% | 0.35 [0.13-0.94] | 0.081 | 0.507 |
| RMI2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|--------------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>BRICD5</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>C16orf82</i> | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| <i>KNOP1</i> | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| <i>C16orf89</i> | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| <i>C16orf90</i> | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| <i>C16orf91</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>C16orf92</i> | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| <i>OGFOD3</i> | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| <i>TEN1</i> | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| <i>LYRM9</i> | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| <i>HID1</i> | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| <i>MIEN1</i> | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| <i>TEFM</i> | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| <i>sept-04</i> | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| <i>C17orf50</i> | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| <i>LINC00469</i> | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| <i>LINC00482</i> | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| <i>EFCAB13</i> | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| <i>C17orf58</i> | 101 | 10 | 9.90% | 196 | 28 | 14.29% | 1.52 [0.80-2.88] | 0.286 | 0.650 |
| <i>MILR1</i> | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| <i>FAM222B</i> | 101 | 3 | 2.97% | 196 | 9 | 4.59% | 1.57 [0.52-4.80] | 0.505 | 0.805 |
| <i>C17orf64</i> | 101 | 8 | 7.92% | 196 | 34 | 17.35% | 2.44 [1.23-4.82] | 3.12E-02 | 0.507 |
| <i>C17orf67</i> | 101 | 8 | 7.92% | 196 | 21 | 10.71% | 1.39 [0.68-2.85] | 0.444 | 0.805 |
| <i>SMG8</i> | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| <i>C17orf77</i> | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| <i>C17orf78</i> | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| <i>C17orf80</i> | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| <i>C17orf82</i> | 101 | 7 | 6.93% | 196 | 32 | 16.33% | 2.62 [1.28-5.38] | 2.75E-02 | 0.507 |
| <i>OXLD1</i> | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| <i>PRAC2</i> | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| <i>METTL23</i> | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| <i>C17orf98</i> | 101 | 4 | 3.96% | 196 | 10 | 5.10% | 1.30 [0.48-3.53] | 0.661 | 0.935 |
| <i>C17orf99</i> | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| <i>LINC00305</i> | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| <i>DYNAP</i> | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| <i>C18orf54</i> | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| <i>C1QTNF1</i> | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| <i>C1QTNF8</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>C1orf100</i> | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| <i>RUSC1-AS1</i> | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| <i>C1orf105</i> | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| <i>C1orf112</i> | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| <i>CCDC181</i> | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| <i>C1orf115</i> | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| <i>C1orf116</i> | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| <i>SPR TN</i> | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| <i>AXDND1</i> | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| <i>MROH9</i> | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| <i>C1orf131</i> | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| <i>SERTAD4-AS1</i> | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| <i>SHCBP1L</i> | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| <i>GCSAML</i> | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| <i>PFN1P2</i> | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| <i>METTL18</i> | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| <i>LINC00303</i> | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| <i>TSACC</i> | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| <i>C1orf189</i> | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| <i>C1orf198</i> | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| <i>C1orf21</i> | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| <i>C1orf220</i> | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| <i>C1orf226</i> | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| <i>C1orf229</i> | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| <i>RIIAD1</i> | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| <i>TRMT1L</i> | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| <i>SWT1</i> | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| <i>COA6</i> | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| <i>C1orf35</i> | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| <i>C1orf43</i> | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| <i>TEX35</i> | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| <i>C1orf53</i> | 101 | 5 | 4.95% | 196 | 23 | 11.73% | 2.55 [1.10-5.90] | 0.066 | 0.507 |
| <i>C1orf54</i> | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| SDE2 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| C1orf56 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| NTPCR | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| BROX | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| C1orf61 | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| RRNAD1 | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| C1orf68 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| IBA57 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| C1orf74 | 101 | 6 | 5.94% | 196 | 22 | 11.22% | 2.00 [0.91-4.39] | 0.146 | 0.535 |
| CHTOP | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| LRRC71 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| CCSAP | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| LINC00467 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| SUCO | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| FAM209A | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| FAM209B | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| FAM210B | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| OSER1 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| SOGA1 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| TLDC2 | 101 | 3 | 2.97% | 196 | 6 | 3.06% | 1.03 [0.32-3.36] | 0.965 | 1.000 |
| GID8 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| OCSTAMP | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| MROH8 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| ABHD16B | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| RBBP8NL | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| CNBD2 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| SPATA25 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| C20orf173 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| FAM217B | 101 | 10 | 9.90% | 196 | 13 | 6.63% | 0.65 [0.31-1.33] | 0.321 | 0.700 |
| C20orf197 | 101 | 11 | 10.89% | 196 | 14 | 7.14% | 0.63 [0.31-1.26] | 0.274 | 0.643 |
| ZFAS1 | 101 | 7 | 6.93% | 196 | 7 | 3.57% | 0.50 [0.20-1.23] | 0.203 | 0.570 |
| MRGBP | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| AAR2 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| C20orf85 | 101 | 8 | 7.92% | 196 | 17 | 8.67% | 1.10 [0.53-2.30] | 0.825 | 1.000 |
| C2CD3 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| C2CD4D | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| ERGIC3 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| XXYL1 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| CEP19 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| MB21D2 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| C3orf70 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| C4BPA | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| C4BPB | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| GFOD1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| C6orf203 | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| CCDC170 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PPP1R17 | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| MALSU1 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| C7orf31 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| MTURN | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FAM221A | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| C7orf71 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TMEM249 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| C8orf31 | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| C8orf33 | 101 | 16 | 15.84% | 196 | 48 | 24.49% | 1.72 [1.02-2.91] | 0.088 | 0.507 |
| C8orf34 | 101 | 14 | 13.86% | 196 | 37 | 18.88% | 1.45 [0.83-2.53] | 0.279 | 0.650 |
| C8orf37 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| NDUFAF6 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| RBM12B-AS1 | 101 | 17 | 16.83% | 196 | 54 | 27.55% | 1.88 [1.13-3.13] | 4.21E-02 | 0.507 |
| SMIM19 | 101 | 16 | 15.84% | 196 | 30 | 15.31% | 0.96 [0.55-1.67] | 0.904 | 1.000 |
| TTI2 | 101 | 4 | 3.96% | 196 | 10 | 5.10% | 1.30 [0.48-3.53] | 0.661 | 0.935 |
| C8orf44 | 101 | 15 | 14.85% | 196 | 38 | 19.39% | 1.38 [0.80-2.38] | 0.335 | 0.716 |
| MCMDC2 | 101 | 15 | 14.85% | 196 | 39 | 19.90% | 1.42 [0.82-2.46] | 0.287 | 0.650 |
| RHPN1-AS1 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| THEM6 | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| LINC00588 | 101 | 14 | 13.86% | 196 | 29 | 14.80% | 1.08 [0.61-1.92] | 0.828 | 1.000 |
| MROH6 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| C8orf76 | 101 | 14 | 13.86% | 196 | 57 | 29.08% | 2.55 [1.49-4.37] | 4.36E-03 | 0.507 |
| ZNF252P-AS1 | 101 | 16 | 15.84% | 196 | 47 | 23.98% | 1.68 [0.99-2.84] | 0.106 | 0.507 |
| TRIQK | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| SBSPON | 101 | 16 | 15.84% | 196 | 42 | 21.43% | 1.45 [0.85-2.47] | 0.252 | 0.623 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| AARD | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| C8orf86 | 101 | 11 | 10.89% | 196 | 43 | 21.94% | 2.30 [1.27-4.18] | 2.18E-02 | 0.507 |
| C9orf131 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| FAM205A | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| RPP25L | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CA10 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| CA13 | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |
| CA14 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| CA1 | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |
| CA2 | 101 | 17 | 16.83% | 196 | 48 | 24.49% | 1.60 [0.96-2.68] | 0.133 | 0.535 |
| CA3 | 101 | 17 | 16.83% | 196 | 48 | 24.49% | 1.60 [0.96-2.68] | 0.133 | 0.535 |
| CA4 | 101 | 7 | 6.93% | 196 | 33 | 16.84% | 2.72 [1.33-5.57] | 2.17E-02 | 0.507 |
| CA8 | 101 | 16 | 15.84% | 196 | 33 | 16.84% | 1.08 [0.62-1.86] | 0.827 | 1.000 |
| CABLES2 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| CABP2 | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| CABP4 | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| CACNA1E | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| CACNA1G | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| CACNA1H | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| CACNA1S | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| CACNB1 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| CACNG1 | 101 | 10 | 9.90% | 196 | 29 | 14.80% | 1.58 [0.83-3.00] | 0.240 | 0.606 |
| CACNG3 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| CACNG4 | 101 | 9 | 8.91% | 196 | 29 | 14.80% | 1.78 [0.91-3.44] | 0.155 | 0.535 |
| CACNG5 | 101 | 9 | 8.91% | 196 | 30 | 15.31% | 1.85 [0.95-3.58] | 0.126 | 0.535 |
| CACYBP | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| CADM3 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| CALB1 | 101 | 18 | 17.82% | 196 | 48 | 24.49% | 1.50 [0.90-2.48] | 0.192 | 0.563 |
| CALCA | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CALCB | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CALCOCO2 | 101 | 2 | 1.98% | 196 | 18 | 9.18% | 5.01 [1.44-17.35] | 3.31E-02 | 0.507 |
| CAMK1G | 101 | 6 | 5.94% | 196 | 23 | 11.73% | 2.11 [0.96-4.60] | 0.118 | 0.526 |
| CAMK2B | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CAMK2G | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CAMK2N2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| CAMSAP2 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| CAND1 | 101 | 4 | 3.96% | 196 | 14 | 7.14% | 1.87 [0.72-4.85] | 0.283 | 0.650 |
| CANT1 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| CAPN2 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| CAPN5 | 101 | 7 | 6.93% | 196 | 19 | 9.69% | 1.44 [0.68-3.07] | 0.427 | 0.791 |
| CAPN8 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| CAPN9 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| CAPS2 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| CARD14 | 101 | 4 | 3.96% | 196 | 14 | 7.14% | 1.87 [0.72-4.85] | 0.283 | 0.650 |
| CARHSP1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| CARNS1 | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| CASC3 | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| CASKIN1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| CASKIN2 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| CASQ1 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| CASS4 | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |
| CATSPER1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CBLN4 | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| CBX1 | 101 | 1 | 0.99% | 196 | 13 | 6.63% | 7.10 [1.27-39.64] | 0.061 | 0.507 |
| CBX2 | 101 | 4 | 3.96% | 196 | 18 | 9.18% | 2.45 [0.97-6.23] | 0.114 | 0.512 |
| CBX3 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CBX4 | 101 | 3 | 2.97% | 196 | 18 | 9.18% | 3.30 [1.16-9.41] | 0.060 | 0.507 |
| CBX8 | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| CCBE1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CCDC106 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| MCU | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CCDC126 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CCDC137 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| CCDC144B | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| CCDC154 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| CCDC158 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| CCDC39 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| CCDC40 | 101 | 3 | 2.97% | 196 | 16 | 8.16% | 2.90 [1.01-8.34] | 0.097 | 0.507 |
| CEP95 | 101 | 8 | 7.92% | 196 | 27 | 13.78% | 1.86 [0.93-3.72] | 0.143 | 0.535 |
| CEP112 | 101 | 9 | 8.91% | 196 | 25 | 12.76% | 1.49 [0.76-2.93] | 0.327 | 0.712 |
| CCDC47 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| CCDC50 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| NSRP1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| CCDC57 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| CCDC68 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| CCDC78 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| CCDC81 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CCDC83 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| CCDC87 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| CCDC89 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| CCL14 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| CCL15 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| CCL16 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| CCL19 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CCL21 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CCL23 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| CCL27 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CCL3L1 | 101 | 3 | 2.97% | 196 | 10 | 5.10% | 1.76 [0.58-5.29] | 0.401 | 0.774 |
| CCL3L3 | 101 | 3 | 2.97% | 196 | 10 | 5.10% | 1.76 [0.58-5.29] | 0.401 | 0.774 |
| CCL3 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| CCL4L2 | 101 | 3 | 2.97% | 196 | 11 | 5.61% | 1.94 [0.65-5.78] | 0.317 | 0.692 |
| CCL4 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| CCL5 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| CCND1 | 101 | 25 | 24.75% | 196 | 63 | 32.14% | 1.44 [0.91-2.27] | 0.188 | 0.553 |
| CCNE2 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| CCNF | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| CCR7 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| CCS | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| CCT2 | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| CCT3 | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| CCT6B | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| CD160 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| CD19 | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| CD1A | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| CD1B | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| CD1C | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| CD1D | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| CD1E | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| CD244 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| CD247 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| CD248 | 101 | 3 | 2.97% | 196 | 6 | 3.06% | 1.03 [0.32-3.36] | 0.965 | 1.000 |
| CD24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CD2BP2 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| CD300A | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| CD300C | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| CD300E | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| CD300LB | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| CD300LD | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| CD300LF | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| CD34 | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| CD40 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| CD44 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| CD46 | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| CD48 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| CD55 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| CD59 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CD5L | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| CD5 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| CD79B | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| CD7 | 101 | 2 | 1.98% | 196 | 14 | 7.14% | 3.81 [1.08-13.43] | 0.081 | 0.507 |
| CD84 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| CDC27 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| CDC42BPA | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| CDC42EP4 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| CDC42SE1 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| CDC6 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| CDC73 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| CDCA7L | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CDH17 | 101 | 17 | 16.83% | 196 | 52 | 26.53% | 1.78 [1.07-2.98] | 0.063 | 0.507 |
| CDH20 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| CDH22 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| CDH24 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| CDH26 | 101 | 10 | 9.90% | 196 | 13 | 6.63% | 0.65 [0.31-1.33] | 0.321 | 0.700 |
| CDH4 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| CDIPT | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| CDK12 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| CDK18 | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| CDK2AP2 | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| CDK3 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| CDK4 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CDK5R1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| CDK5RAP3 | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| CDKL2 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| CDR2L | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| CDR2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| CDY1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDY1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDY2B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CEBPB | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| CEBPD | 101 | 14 | 13.86% | 196 | 28 | 14.29% | 1.04 [0.58-1.85] | 0.921 | 1.000 |
| CELF3 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| CELF6 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CEMP1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| CENPF | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| CENPL | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| CEP170 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| CEP250 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| CEP290 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CEP350 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| CFHR1 | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| CFHR2 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| CFHR3 | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| CFHR4 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| CFHR5 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| CFH | 101 | 4 | 3.96% | 196 | 21 | 10.71% | 2.91 [1.16-7.31] | 0.056 | 0.507 |
| CFL2 | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CGN | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| CHAD | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| CHCHD1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CHCHD7 | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| COA4 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| CHD1L | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| CHD2 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CHD6 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| CHD7 | 101 | 16 | 15.84% | 196 | 31 | 15.82% | 1.00 [0.57-1.73] | 0.995 | 1.000 |
| CHI3L1 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| CHIT1 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| CHKA | 101 | 8 | 7.92% | 196 | 21 | 10.71% | 1.39 [0.68-2.85] | 0.444 | 0.805 |
| CHML | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| CHMP4C | 101 | 18 | 17.82% | 196 | 46 | 23.47% | 1.41 [0.85-2.35] | 0.263 | 0.643 |
| CHMP6 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| CHN2 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CHORDC1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CHP2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| CHRAC1 | 101 | 17 | 16.83% | 196 | 50 | 25.51% | 1.69 [1.01-2.83] | 0.092 | 0.507 |
| CHRD1L | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| CHRD | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| CHRM3 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| CHRNA4 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| CHRNA6 | 101 | 14 | 13.86% | 196 | 28 | 14.29% | 1.04 [0.58-1.85] | 0.921 | 1.000 |
| CHRN2 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| CHRN3 | 101 | 14 | 13.86% | 196 | 28 | 14.29% | 1.04 [0.58-1.85] | 0.921 | 1.000 |
| CHTF18 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| CIB1 | 101 | 2 | 1.98% | 196 | 8 | 4.08% | 2.11 [0.56-7.86] | 0.352 | 0.722 |
| CIB2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CIITA | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| CISD3 | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| CKS1B | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| CLCF1 | 101 | 11 | 10.89% | 196 | 17 | 8.67% | 0.78 [0.40-1.52] | 0.536 | 0.834 |
| CLCN2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| CLCN7 | 101 | 7 | 6.93% | 196 | 5 | 2.55% | 0.35 [0.13-0.94] | 0.081 | 0.507 |
| CLDN11 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| CLDN16 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| CLDN1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| CLDN6 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| CLDN9 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| CLEC14A | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CLEC16A | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| CLK2 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| CLLU10S | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CLLU1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CLN3 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| CLNS1A | 101 | 10 | 9.90% | 196 | 21 | 10.71% | 1.09 [0.56-2.13] | 0.828 | 1.000 |
| CLPB | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| CLRN1-AS1 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| CLRN1 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| CLTC | 101 | 9 | 8.91% | 196 | 33 | 16.84% | 2.07 [1.08-3.98] | 0.068 | 0.507 |
| CLUAP1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| CLVS1 | 101 | 15 | 14.85% | 196 | 30 | 15.31% | 1.04 [0.59-1.82] | 0.918 | 1.000 |
| CNBD1 | 101 | 16 | 15.84% | 196 | 47 | 23.98% | 1.68 [0.99-2.84] | 0.106 | 0.507 |
| CNGB3 | 101 | 17 | 16.83% | 196 | 48 | 24.49% | 1.60 [0.96-2.68] | 0.133 | 0.535 |
| CNIH2 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| CNIH3 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| CNIH4 | 101 | 7 | 6.93% | 196 | 17 | 8.67% | 1.28 [0.59-2.75] | 0.602 | 0.887 |
| CNOT2 | 101 | 3 | 2.97% | 196 | 16 | 8.16% | 2.90 [1.01-8.34] | 0.097 | 0.507 |
| CNST | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| CNTFR | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CNTN2 | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| COCH | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| COG1 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| COG2 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| COG7 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| COIL | 101 | 7 | 6.93% | 196 | 23 | 11.73% | 1.79 [0.85-3.74] | 0.198 | 0.570 |
| COL14A1 | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| COL1A1 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| COL20A1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| COL22A1 | 101 | 15 | 14.85% | 196 | 51 | 26.02% | 2.02 [1.18-3.43] | 3.03E-02 | 0.507 |
| COL9A3 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| COLEC10 | 101 | 15 | 14.85% | 196 | 59 | 30.10% | 2.47 [1.46-4.18] | 4.76E-03 | 0.507 |
| COMMD5 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| COMTD1 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| COPA | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| COPSS | 101 | 15 | 14.85% | 196 | 39 | 19.90% | 1.42 [0.82-2.46] | 0.287 | 0.650 |
| COPZ2 | 101 | 1 | 0.99% | 196 | 12 | 6.12% | 6.52 [1.16-36.57] | 0.074 | 0.507 |
| COQ7 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| CORO1A | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| CORO1B | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| CORO6 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| CORO7 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| COX11 | 101 | 7 | 6.93% | 196 | 18 | 9.18% | 1.36 [0.63-2.91] | 0.509 | 0.805 |
| COX18 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| COX6A2 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| COX6B2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| COX6C | 101 | 15 | 14.85% | 196 | 56 | 28.57% | 2.29 [1.35-3.89] | 9.81E-03 | 0.507 |
| CCP110 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| CPA6 | 101 | 15 | 14.85% | 196 | 37 | 18.88% | 1.33 [0.77-2.31] | 0.388 | 0.757 |
| CPD | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| CPEB1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CPLX4 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CPM | 101 | 2 | 1.98% | 196 | 19 | 9.69% | 5.31 [1.54-18.36] | 2.67E-02 | 0.507 |
| CPN2 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| CPNE1 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| CPNE3 | 101 | 18 | 17.82% | 196 | 48 | 24.49% | 1.50 [0.90-2.48] | 0.192 | 0.563 |
| CPPED1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| CPSF1 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| CPSF4L | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| CPSF6 | 101 | 3 | 2.97% | 196 | 19 | 9.69% | 3.51 [1.24-9.95] | 4.78E-02 | 0.507 |
| CPSF7 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CPT1A | 101 | 12 | 11.88% | 196 | 34 | 17.35% | 1.56 [0.86-2.82] | 0.220 | 0.596 |
| CPVL | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CP | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| CR1L | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| CR1 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| CR2 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| CRABP2 | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| CRB1 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| CRCT1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| CREB3L4 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| CREB5 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CREBBP | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| CREBZF | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| CREG1 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| CRHR2 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CRH | 101 | 15 | 14.85% | 196 | 37 | 18.88% | 1.33 [0.77-2.31] | 0.388 | 0.757 |
| CRISPLD1 | 101 | 14 | 13.86% | 196 | 41 | 20.92% | 1.64 [0.94-2.86] | 0.141 | 0.535 |
| CRLF3 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| CRNN | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| CRP | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| CRTC2 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| CRTC3 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| CRYBA1 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| CRYM | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| YBX3P1 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| CSE1L | 101 | 6 | 5.94% | 196 | 7 | 3.57% | 0.59 [0.23-1.50] | 0.349 | 0.722 |
| CSF3 | 101 | 5 | 4.95% | 196 | 11 | 5.61% | 1.14 [0.46-2.84] | 0.811 | 1.000 |
| CSH1 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| CSH2 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| CSHL1 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| CSMD1 | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| CSMD3 | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| CSNK1D | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| CSPP1 | 101 | 15 | 14.85% | 196 | 39 | 19.90% | 1.42 [0.82-2.46] | 0.287 | 0.650 |
| CSRP1 | 101 | 7 | 6.93% | 196 | 23 | 11.73% | 1.79 [0.85-3.74] | 0.198 | 0.570 |
| CSRP2 | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CSRP3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CST6 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CSTF1 | 101 | 8 | 7.92% | 196 | 13 | 6.63% | 0.83 [0.38-1.78] | 0.682 | 0.943 |
| CTAGE4 | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| CTAGE6 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| CTCFL | 101 | 9 | 8.91% | 196 | 17 | 8.67% | 0.97 [0.48-1.97] | 0.945 | 1.000 |
| CTDSP2 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CTF1 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| CTHRC1 | 101 | 16 | 15.84% | 196 | 55 | 28.06% | 2.07 [1.23-3.48] | 2.09E-02 | 0.507 |
| CTNNBL1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| CTSA | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| CTSC | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CTSE | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| CTSF | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| CTSK | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| CTSS | 101 | 8 | 7.92% | 196 | 16 | 8.16% | 1.03 [0.49-2.17] | 0.942 | 1.000 |
| CTSZ | 101 | 9 | 8.91% | 196 | 15 | 7.65% | 0.85 [0.41-1.75] | 0.707 | 0.962 |
| CTTN | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| CUEDC1 | 101 | 6 | 5.94% | 196 | 25 | 12.76% | 2.31 [1.06-5.03] | 0.076 | 0.507 |
| CWC25 | 101 | 4 | 3.96% | 196 | 10 | 5.10% | 1.30 [0.48-3.53] | 0.661 | 0.935 |
| CXADRP2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CXCL10 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| CXCL11 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| CXCL1 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| CXCL2 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| CXCL3 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| CXCL5 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| CXCL6 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| CXCL9 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| CYB561 | 101 | 8 | 7.92% | 196 | 31 | 15.82% | 2.18 [1.10-4.34] | 0.061 | 0.507 |
| CYB5R1 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| CYB561A3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| CYC1 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| CYCSP52 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| CYCS | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| CYGB | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| CYHR1 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| CYP11B1 | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| CYP11B2 | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| CYP24A1 | 101 | 12 | 11.88% | 196 | 23 | 11.73% | 0.99 [0.53-1.84] | 0.970 | 1.000 |
| CYP27B1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| CYP7A1 | 101 | 14 | 13.86% | 196 | 33 | 16.84% | 1.26 [0.71-2.22] | 0.506 | 0.805 |
| CYP7B1 | 101 | 15 | 14.85% | 196 | 33 | 16.84% | 1.16 [0.66-2.03] | 0.660 | 0.935 |
| CYTH1 | 101 | 3 | 2.97% | 196 | 14 | 7.14% | 2.51 [0.86-7.30] | 0.155 | 0.535 |
| DAP3 | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| DARS2 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| DAZ1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DAZ2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DAZ3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DAZ4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DBNDD2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| DCAF13 | 101 | 16 | 15.84% | 196 | 55 | 28.06% | 2.07 [1.23-3.48] | 2.09E-02 | 0.507 |
| DCAF4L2 | 101 | 19 | 18.81% | 196 | 49 | 25.00% | 1.44 [0.87-2.37] | 0.231 | 0.599 |
| DCAF6 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| DCAF7 | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| DCAF8 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| ECI1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| DCN | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| DCST1 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| DCST2 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| DCTN3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| DCTN5 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| DCTPP1 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| DCUN1D1 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| DCUN1D3 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| DCXR | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| DDB1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| DDHD2 | 101 | 10 | 9.90% | 196 | 43 | 21.94% | 2.56 [1.38-4.74] | 1.23E-02 | 0.507 |
| DDR2 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| DDX27 | 101 | 8 | 7.92% | 196 | 7 | 3.57% | 0.43 [0.18-1.03] | 0.114 | 0.512 |
| DDX3Y | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DDX42 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| DDX52 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| DDX59 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| DDX5 | 101 | 8 | 7.92% | 196 | 27 | 13.78% | 1.86 [0.93-3.72] | 0.143 | 0.535 |
| DECR1 | 101 | 18 | 17.82% | 196 | 48 | 24.49% | 1.50 [0.90-2.48] | 0.192 | 0.563 |
| DECR2 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| DEDD | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| DEFB108B | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| DEGS1 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| DENND1B | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| DENND3 | 101 | 18 | 17.82% | 196 | 50 | 25.51% | 1.58 [0.95-2.62] | 0.137 | 0.535 |
| DENND4B | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| DEPTOR | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| DERL1 | 101 | 14 | 13.86% | 196 | 56 | 28.57% | 2.49 [1.45-4.27] | 5.58E-03 | 0.507 |
| DET1 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| DEXI | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| DGAT1 | 101 | 18 | 17.82% | 196 | 50 | 25.51% | 1.58 [0.95-2.62] | 0.137 | 0.535 |
| DGAT2 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| DGKE | 101 | 8 | 7.92% | 196 | 23 | 11.73% | 1.55 [0.76-3.14] | 0.311 | 0.680 |
| DHCR7 | 101 | 12 | 11.88% | 196 | 24 | 12.24% | 1.03 [0.56-1.92] | 0.928 | 1.000 |
| DHRS11 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| DHRS13 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| DHX35 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| DHX40 | 101 | 9 | 8.91% | 196 | 31 | 15.82% | 1.92 [0.99-3.71] | 0.103 | 0.507 |
| DHX9 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| DIDO1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| DISC1 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| DISC2 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| DISP1 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| DKFZP58614 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| NCR3LG1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| DKK4 | 101 | 14 | 13.86% | 196 | 32 | 16.33% | 1.21 [0.69-2.15] | 0.578 | 0.867 |
| DLG1 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| DLGAP4 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| DLX3 | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| DLX4 | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| DNAH11 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| DNAH14 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| DNAH17 | 101 | 3 | 2.97% | 196 | 14 | 7.14% | 2.51 [0.86-7.30] | 0.155 | 0.535 |
| DNAH3 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| DNAI2 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| DNAJA3 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| DNAJB13 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| DNAJB5 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| DNAJB6 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| DNAJC19 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| DNAJCSB | 101 | 15 | 14.85% | 196 | 37 | 18.88% | 1.33 [0.77-2.31] | 0.388 | 0.757 |
| DNAJCS | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| DNAJC9 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| DNASE1L2 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| DNASE1 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| DNM3 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| DNTTIP1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| DOC2A | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| DOK5 | 101 | 10 | 9.90% | 196 | 17 | 8.67% | 0.86 [0.43-1.72] | 0.728 | 0.986 |
| DPH3P1 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| DPM1 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| DPM3 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| DPP3 | 101 | 5 | 4.95% | 196 | 11 | 5.61% | 1.14 [0.46-2.84] | 0.811 | 1.000 |
| DPRXP4 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| DPT | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| DPY19L1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| DPY19L2P1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| DPY19L2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| DPY19L4 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| DPYS | 101 | 17 | 16.83% | 196 | 50 | 25.51% | 1.69 [1.01-2.83] | 0.092 | 0.507 |
| DSCC1 | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| DSG1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| DSG4 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| DSN1 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| DSTYK | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| DTL | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| DUPD1 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| DUS1L | 101 | 2 | 1.98% | 196 | 14 | 7.14% | 3.81 [1.08-13.43] | 0.081 | 0.507 |
| DUSP10 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| DUSP12 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| DUSP13 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| DUSP14 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| DUSP23 | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| DUSP26 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| DUSP27 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| DUSP5P1 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| DUSP6 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| DVL3 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| DYNLL2 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| DYNLRB1 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| DYRK2 | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| DYRK3 | 101 | 6 | 5.94% | 196 | 25 | 12.76% | 2.31 [1.06-5.03] | 0.076 | 0.507 |
| PPP1R27 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| E2F5 | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |
| E2F7 | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| E2F8 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| E4F1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| EAPP | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| EARS2 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| EBAG9 | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| ECD | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| ECE2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| ECM1 | 101 | 9 | 8.91% | 196 | 16 | 8.16% | 0.91 [0.44-1.86] | 0.826 | 1.000 |
| EDARADD | 101 | 7 | 6.93% | 196 | 19 | 9.69% | 1.44 [0.68-3.07] | 0.427 | 0.791 |
| EDEM2 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| EDEM3 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| EDN3 | 101 | 10 | 9.90% | 196 | 15 | 7.65% | 0.75 [0.37-1.52] | 0.510 | 0.805 |
| EEA1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| EED | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| EEF1A2 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| EEF1D | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| EEF2K | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| EFCAB1 | 101 | 14 | 13.86% | 196 | 25 | 12.76% | 0.91 [0.50-1.64] | 0.789 | 0.996 |
| EFCAB2 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| EFCAB3 | 101 | 9 | 8.91% | 196 | 34 | 17.35% | 2.15 [1.12-4.12] | 0.055 | 0.507 |
| EFCAB5 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| EFNA1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| EFNA3 | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| EFNA4 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| EFR3A | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| EGLN1 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| EGLN3 | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| EHHADH | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| EIF1AD | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| EIF1AY | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF2B5 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| AGO2 | 101 | 18 | 17.82% | 196 | 51 | 26.02% | 1.62 [0.98-2.69] | 0.115 | 0.516 |
| EIF3CL | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| EIF3C | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| EIF3E | 101 | 16 | 15.84% | 196 | 50 | 25.51% | 1.82 [1.08-3.07] | 0.060 | 0.507 |
| EIF3H | 101 | 16 | 15.84% | 196 | 59 | 30.10% | 2.29 [1.37-3.83] | 8.37E-03 | 0.507 |
| EIF4A3 | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| EIF4EBP1 | 101 | 10 | 9.90% | 196 | 50 | 25.51% | 3.12 [1.69-5.74] | 2.20E-03 | 0.507 |
| EIF4G1 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| EIF6 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| ELF3 | 101 | 8 | 7.92% | 196 | 24 | 12.24% | 1.62 [0.80-3.28] | 0.258 | 0.635 |
| ELK4 | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| ELMO2 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| EME1 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| EME2 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| EMILIN3 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| EMP2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ENAH | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| ENGASE | 101 | 3 | 2.97% | 196 | 14 | 7.14% | 2.51 [0.86-7.30] | 0.155 | 0.535 |
| ENHO | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ENPP2 | 101 | 15 | 14.85% | 196 | 56 | 28.57% | 2.29 [1.35-3.89] | 9.81E-03 | 0.507 |
| ENPP7 | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| ENSA | 101 | 9 | 8.91% | 196 | 17 | 8.67% | 0.97 [0.48-1.97] | 0.945 | 1.000 |
| ENY2 | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| EPB41L1 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| EPGN | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| EPHB3 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| EPHB6 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| EPHX1 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| EPN1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| EPN2 | 101 | 4 | 3.96% | 196 | 1 | 0.51% | 0.12 [0.02-0.79] | 0.064 | 0.507 |
| EPN3 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| EPPK1 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| EPRS | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| EPX | 101 | 6 | 5.94% | 196 | 26 | 13.27% | 2.42 [1.12-5.25] | 0.060 | 0.507 |
| ERAL1 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| ERBB2 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| ERCC4 | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| EREG | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| ERL2 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| ERLIN2 | 101 | 11 | 10.89% | 196 | 53 | 27.04% | 3.03 [1.68-5.46] | 1.92E-03 | 0.507 |
| ERN1 | 101 | 8 | 7.92% | 196 | 27 | 13.78% | 1.86 [0.93-3.72] | 0.143 | 0.535 |
| ERN2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| ESRP1 | 101 | 17 | 16.83% | 196 | 54 | 27.55% | 1.88 [1.13-3.13] | 4.21E-02 | 0.507 |
| ESRRG | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| ETNK2 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| ETV3L | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| ETV3 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| EVPL | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| EVX1 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| EXO1 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| EXOC7 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| EXOC8 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| EXOSC4 | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| EXT1 | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| EYA1 | 101 | 12 | 11.88% | 196 | 34 | 17.35% | 1.56 [0.86-2.82] | 0.220 | 0.596 |
| EYA2 | 101 | 5 | 4.95% | 196 | 7 | 3.57% | 0.71 [0.27-1.90] | 0.569 | 0.855 |
| F11R | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| F13B | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| F5 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| FABP12 | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |
| FABP4 | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| FABP5 | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |
| FABP9 | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |
| FADD | 101 | 20 | 19.80% | 196 | 56 | 28.57% | 1.62 [1.00-2.63] | 0.103 | 0.507 |
| FADS6 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| FAHD1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| UBALD1 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| UBALD2 | 101 | 3 | 2.97% | 196 | 14 | 7.14% | 2.51 [0.86-7.30] | 0.155 | 0.535 |
| FAM104A | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| FAM106A | 101 | 6 | 5.94% | 196 | 6 | 3.06% | 0.50 [0.19-1.32] | 0.241 | 0.608 |
| ABHD17C | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| FAM110B | 101 | 14 | 13.86% | 196 | 33 | 16.84% | 1.26 [0.71-2.22] | 0.506 | 0.805 |
| FAM117A | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| FAM126A | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FAM129A | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| FAM131A | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| FAM135B | 101 | 15 | 14.85% | 196 | 51 | 26.02% | 2.02 [1.18-3.43] | 3.03E-02 | 0.507 |
| FAM149B1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FAM163A | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ZC2HC1A | 101 | 15 | 14.85% | 196 | 47 | 23.98% | 1.81 [1.06-3.09] | 0.069 | 0.507 |
| FAM168A | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| FAM169B | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| FAM173A | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| FAM174B | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FAM177A1 | 101 | 0 | 0.00% | 196 | 10 | 5.10% | 4.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FAM177B | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| FAM181B | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| FAM189B | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| TVP23A | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| FAM197Y2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM20A | 101 | 8 | 7.92% | 196 | 24 | 12.24% | 1.62 [0.80-3.28] | 0.258 | 0.635 |
| FAM20B | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| COX20 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| FAM41AY1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM43A | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| FAM47E | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| FAM49B | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| FAM57B | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| BRINP2 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| BRINP3 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| FAM66D | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| FAM71A | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| FAM71E2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| FAM72A | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| SPATA31A6 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FAM78B | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| RMDN1 | 101 | 18 | 17.82% | 196 | 47 | 23.98% | 1.45 [0.87-2.42] | 0.226 | 0.598 |
| FAM83A | 101 | 14 | 13.86% | 196 | 57 | 29.08% | 2.55 [1.49-4.37] | 4.36E-03 | 0.507 |
| FAM83C | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| FAM83D | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| FAM83H | 101 | 17 | 16.83% | 196 | 50 | 25.51% | 1.69 [1.01-2.83] | 0.092 | 0.507 |
| FAM86C1 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| FAM89A | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| FAM91A1 | 101 | 14 | 13.86% | 196 | 57 | 29.08% | 2.55 [1.49-4.37] | 4.36E-03 | 0.507 |
| FANCF | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| FANCI | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| FASLG | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| FASN | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| FBF1 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| FBRS | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| FBXL16 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| FBXL19 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| FBXL20 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| FBXL6 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| FBXO28 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| FBXO32 | 101 | 14 | 13.86% | 196 | 57 | 29.08% | 2.55 [1.49-4.37] | 4.36E-03 | 0.507 |
| FBXO3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| FBXO43 | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| FBXO45 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| FBXO47 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| FCAMR | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| FCER1A | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| FCER1G | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| FCGR1A | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| FCGR2A | 101 | 7 | 6.93% | 196 | 18 | 9.18% | 1.36 [0.63-2.91] | 0.509 | 0.805 |
| FCGR2B | 101 | 10 | 9.90% | 196 | 19 | 9.69% | 0.98 [0.50-1.92] | 0.955 | 1.000 |
| FCGR2C | 101 | 9 | 8.91% | 196 | 22 | 11.22% | 1.29 [0.65-2.56] | 0.538 | 0.835 |
| FCGR3A | 101 | 9 | 8.91% | 196 | 20 | 10.20% | 1.16 [0.58-2.32] | 0.722 | 0.980 |
| FCGR3B | 101 | 9 | 8.91% | 196 | 22 | 11.22% | 1.29 [0.65-2.56] | 0.538 | 0.835 |
| FCHO1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| FCHSD2 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| FCRL1 | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| FCRL2 | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| FCRL3 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| FCRL4 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| FCRL5 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| FCRL6 | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| FCRLA | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| FCRLB | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| FDPS | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| FDXR | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| FER1L6 | 101 | 14 | 13.86% | 196 | 57 | 29.08% | 2.55 [1.49-4.37] | 4.36E-03 | 0.507 |
| FES | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| FGD5 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FGD6 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FGF12 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| FGF19 | 101 | 23 | 22.77% | 196 | 63 | 32.14% | 1.61 [1.01-2.56] | 0.093 | 0.507 |
| FGF3 | 101 | 24 | 23.76% | 196 | 59 | 30.10% | 1.38 [0.87-2.19] | 0.250 | 0.623 |
| FGF4 | 101 | 24 | 23.76% | 196 | 58 | 29.59% | 1.35 [0.85-2.14] | 0.288 | 0.650 |
| FGFR1 | 101 | 11 | 10.89% | 196 | 43 | 21.94% | 2.30 [1.27-4.18] | 2.18E-02 | 0.507 |
| FH | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| FITM2 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| FIZ1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| FKBP14 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FKBP9 | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FLAD1 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| FLG2 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| FLG | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| FLJ16779 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| FLJ42393 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| FLJ42627 | 101 | 9 | 8.91% | 196 | 5 | 2.55% | 0.27 [0.10-0.69] | 2.12E-02 | 0.507 |
| FLOT2 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| FLT1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FLVCR1 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| FLYWCH1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| FLYWCH2 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| FMN2 | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| FMO1 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| FMO2 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| FMO3 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| FMO4 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| FMO5 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| FMO6P | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| FMO9P | 101 | 4 | 3.96% | 196 | 11 | 5.61% | 1.44 [0.54-3.85] | 0.540 | 0.837 |
| FMOD | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| FN3KRP | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| FN3K | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| FNDC8 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| FNTA | 101 | 13 | 12.87% | 196 | 22 | 11.22% | 0.86 [0.46-1.58] | 0.677 | 0.943 |
| FOLR1 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| FOLR2 | 101 | 5 | 4.95% | 196 | 8 | 4.08% | 0.82 [0.31-2.13] | 0.729 | 0.986 |
| FOLR3 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| FOXA1 | 101 | 0 | 0.00% | 196 | 14 | 7.14% | 6.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FOXH1 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| FOXJ1 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| FOXK2 | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| FOXN1 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| FPR1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| FPR2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| FPR3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| FRS2 | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| FSCN2 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| FSD2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| FTSJ3 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| FURIN | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| FUS | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| FUT10 | 101 | 4 | 3.96% | 196 | 10 | 5.10% | 1.30 [0.48-3.53] | 0.661 | 0.935 |
| FUT11 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| FUT3 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| FXR1 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| FYTTD1 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| FZD4 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| FZD6 | 101 | 16 | 15.84% | 196 | 56 | 28.57% | 2.13 [1.27-3.57] | 1.67E-02 | 0.507 |
| GOS2 | 101 | 6 | 5.94% | 196 | 23 | 11.73% | 2.11 [0.96-4.60] | 0.118 | 0.526 |
| G2E3 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| G3BP2 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| GAA | 101 | 3 | 2.97% | 196 | 16 | 8.16% | 2.90 [1.01-8.34] | 0.097 | 0.507 |
| GAB2 | 101 | 8 | 7.92% | 196 | 16 | 8.16% | 1.03 [0.49-2.17] | 0.942 | 1.000 |
| GABARAPL3 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| GABPB2 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| GAL3ST3 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| GALK1 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| GALNT2 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| GALR2 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| GALT | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| GAL | 101 | 10 | 9.90% | 196 | 28 | 14.29% | 1.52 [0.80-2.88] | 0.286 | 0.650 |
| GARS | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| GAS2L2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| GAS2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| GAS5 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| GATA5 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| GATAD2B | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| GBAP1 | 101 | 9 | 8.91% | 196 | 16 | 8.16% | 0.91 [0.44-1.86] | 0.826 | 1.000 |
| GBA | 101 | 8 | 7.92% | 196 | 13 | 6.63% | 0.83 [0.38-1.78] | 0.682 | 0.943 |
| GCGR | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| GCK | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| GCNT7 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| GDAP1L1 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| GDAP1 | 101 | 17 | 16.83% | 196 | 42 | 21.43% | 1.35 [0.80-2.27] | 0.348 | 0.722 |
| GDE1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| GDF5 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| GDF6 | 101 | 16 | 15.84% | 196 | 53 | 27.04% | 1.97 [1.17-3.31] | 3.23E-02 | 0.507 |
| GDPD1 | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| GDPD3 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| GDPD4 | 101 | 8 | 7.92% | 196 | 20 | 10.20% | 1.32 [0.64-2.71] | 0.525 | 0.818 |
| GDPD5 | 101 | 4 | 3.96% | 196 | 18 | 9.18% | 2.45 [0.97-6.23] | 0.114 | 0.512 |
| GEM | 101 | 17 | 16.83% | 196 | 52 | 26.53% | 1.78 [1.07-2.98] | 0.063 | 0.507 |
| GFER | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| GGA2 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| GGA3 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| GGCT | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| GGH | 101 | 16 | 15.84% | 196 | 33 | 16.84% | 1.08 [0.62-1.86] | 0.827 | 1.000 |
| GGNBP2 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| GGPS1 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| GGT7 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| GH1 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| GH2 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| GHRHR | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| GHRH | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| GINS4 | 101 | 15 | 14.85% | 196 | 31 | 15.82% | 1.08 [0.61-1.89] | 0.828 | 1.000 |
| GIP | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| GIT1 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| SLX1B | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| GJA5 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| GJA8 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| GJC2 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| GJD3 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| GLI4 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| GLIPR1L1 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| GLIPR1L2 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| GLIPR1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| GLIS2 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| GLRX2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| COLGALT2 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| GLUL | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| GLYR1 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| GMEB2 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| GML | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| GNA13 | 101 | 8 | 7.92% | 196 | 23 | 11.73% | 1.55 [0.76-3.14] | 0.311 | 0.680 |
| GNAS-AS1 | 101 | 9 | 8.91% | 196 | 14 | 7.14% | 0.79 [0.38-1.64] | 0.590 | 0.870 |
| GNAS | 101 | 9 | 8.91% | 196 | 15 | 7.65% | 0.85 [0.41-1.75] | 0.707 | 0.962 |
| GNB4 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| GNG13 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| GNG4 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| GNGT2 | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| GNPAT | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| GNPTG | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| GNRHR2 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| GNS | 101 | 3 | 2.97% | 196 | 6 | 3.06% | 1.03 [0.32-3.36] | 0.965 | 1.000 |
| GOLGA2P3Y | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOLGA6L5P | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| GOLGA6L6 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| GOLGA7 | 101 | 13 | 12.87% | 196 | 31 | 15.82% | 1.27 [0.71-2.28] | 0.499 | 0.805 |
| GOLGA8CP | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| GOLPH3L | 101 | 9 | 8.91% | 196 | 17 | 8.67% | 0.97 [0.48-1.97] | 0.945 | 1.000 |
| GOLT1A | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| GON4L | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| GORAB | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| GOSR1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| GOSR2 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| GOT1L1 | 101 | 10 | 9.90% | 196 | 51 | 26.02% | 3.20 [1.74-5.89] | 1.70E-03 | 0.507 |
| GP2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| GP5 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| GPA33 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| GPAA1 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| GPATCH2 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| GPATCH4 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| GPIHBP1 | 101 | 16 | 15.84% | 196 | 48 | 24.49% | 1.72 [1.02-2.91] | 0.088 | 0.507 |
| GNMB | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| GPR137B | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| GPR139 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| GPR142 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| GPR152 | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| GPR161 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| GPR171 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| SLC52A2 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| GPR179 | 101 | 5 | 4.95% | 196 | 8 | 4.08% | 0.82 [0.31-2.13] | 0.729 | 0.986 |
| GPR20 | 101 | 18 | 17.82% | 196 | 50 | 25.51% | 1.58 [0.95-2.62] | 0.137 | 0.535 |
| GPR25 | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| GPR37L1 | 101 | 8 | 7.92% | 196 | 24 | 12.24% | 1.62 [0.80-3.28] | 0.258 | 0.635 |
| GPR52 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| GPR87 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| GPR89A | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| GPR89B | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| GPRCSB | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| GPRC5C | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| GPS1 | 101 | 2 | 1.98% | 196 | 14 | 7.14% | 3.81 [1.08-13.43] | 0.081 | 0.507 |
| GPT2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| GPT | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| GRAPL | 101 | 5 | 4.95% | 196 | 1 | 0.51% | 0.098 [0.016-0.60] | 3.55E-02 | 0.507 |
| GRB2 | 101 | 5 | 4.95% | 196 | 11 | 5.61% | 1.14 [0.46-2.84] | 0.811 | 1.000 |
| GRB7 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| GREM2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| GRHL2 | 101 | 18 | 17.82% | 196 | 55 | 28.06% | 1.80 [1.09-2.97] | 0.054 | 0.507 |
| GRIN2A | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| GRIN2C | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| GRINA | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| GRIP1 | 101 | 2 | 1.98% | 196 | 10 | 5.10% | 2.66 [0.73-9.67] | 0.212 | 0.586 |
| GRM5 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| GRP | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| GSDMA | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| GSDMB | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| GSDMC | 101 | 15 | 14.85% | 196 | 57 | 29.08% | 2.35 [1.39-3.99] | 7.74E-03 | 0.507 |
| GSDMD | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| GSG1L | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| GSPT1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| GSR | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| GSS | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| GSTM1 | 101 | 20 | 19.80% | 196 | 32 | 16.33% | 0.79 [0.47-1.33] | 0.456 | 0.805 |
| GSTM2 | 101 | 5 | 4.95% | 196 | 1 | 0.51% | 0.098 [0.016-0.60] | 3.55E-02 | 0.507 |
| GSTP1 | 101 | 9 | 8.91% | 196 | 20 | 10.20% | 1.16 [0.58-2.32] | 0.722 | 0.980 |
| GSTT1 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| GTF2E2 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| GTF2H2 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| GTF3C1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| MTG2 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| GTSF1L | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| GUCY2EP | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| GUK1 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| H3F3A | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| H3F3B | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| HACE1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HAGHL | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| HAGH | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| HAPLN2 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| HAPLN3 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| HAR1A | 101 | 8 | 7.92% | 196 | 13 | 6.63% | 0.83 [0.38-1.78] | 0.682 | 0.943 |
| HAR1B | 101 | 8 | 7.92% | 196 | 13 | 6.63% | 0.83 [0.38-1.78] | 0.682 | 0.943 |
| HAS1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| HAS2-AS1 | 101 | 15 | 14.85% | 196 | 53 | 27.04% | 2.12 [1.25-3.61] | 1.95E-02 | 0.507 |
| HAS2 | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| HAX1 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| HBA1 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| HBA2 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| HBM | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| HBQ1 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| HBZ | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| HCFC1R1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| HCN3 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| HDDC3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| HDGF | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| HEATR1 | 101 | 7 | 6.93% | 196 | 19 | 9.69% | 1.44 [0.68-3.07] | 0.427 | 0.791 |
| HEATR4 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| HEATR5A | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| HEATR6 | 101 | 7 | 6.93% | 196 | 33 | 16.84% | 2.72 [1.33-5.57] | 2.17E-02 | 0.507 |
| MROH1 | 101 | 18 | 17.82% | 196 | 50 | 25.51% | 1.58 [0.95-2.62] | 0.137 | 0.535 |
| HECTD1 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HELB | 101 | 2 | 1.98% | 196 | 9 | 4.59% | 2.38 [0.65-8.76] | 0.273 | 0.643 |
| HELZ | 101 | 10 | 9.90% | 196 | 29 | 14.80% | 1.58 [0.83-3.00] | 0.240 | 0.606 |
| HERC2P4 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| HES1 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| HEXA | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| HEY1 | 101 | 17 | 16.83% | 196 | 46 | 23.47% | 1.52 [0.90-2.54] | 0.187 | 0.551 |
| HGSNAT | 101 | 12 | 11.88% | 196 | 24 | 12.24% | 1.03 [0.56-1.92] | 0.928 | 1.000 |
| HGS | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| HHAT | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| HHIPL2 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| HHLA1 | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| HIBADH | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HILS1 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| HIRIP3 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| HIST2H2AA3 | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |
| HIST2H2AB | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| HIST2H2AC | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| HIST2H2BE | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| HIST2H2BF | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| HIST2H3C | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| HIST2H3D | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| HIST2H4A | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |
| HIST3H2A | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| HIST3H2BB | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| HIST3H3 | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| HLA-DRB1 | 101 | 17 | 16.83% | 196 | 35 | 17.86% | 1.07 [0.63-1.83] | 0.826 | 1.000 |
| HLA-DRB5 | 101 | 24 | 23.76% | 196 | 49 | 25.00% | 1.07 [0.67-1.71] | 0.814 | 1.000 |
| HLA-DRB6 | 101 | 17 | 16.83% | 196 | 33 | 16.84% | 1.00 [0.58-1.71] | 0.999 | 1.000 |
| HLF | 101 | 8 | 7.92% | 196 | 21 | 10.71% | 1.39 [0.68-2.85] | 0.444 | 0.805 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| HLX | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| HMCN1 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| HMGA2 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| HMGB1 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| HMGB3P1 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| HMOX2 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| HMSD | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| HNF1B | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| HNF4A | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| HNF4G | 101 | 14 | 13.86% | 196 | 41 | 20.92% | 1.64 [0.94-2.86] | 0.141 | 0.535 |
| HNRNPA2B1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HNRNPU | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| HOMER2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| HOOK3 | 101 | 13 | 12.87% | 196 | 26 | 13.27% | 1.04 [0.57-1.88] | 0.924 | 1.000 |
| HORMAD1 | 101 | 8 | 7.92% | 196 | 16 | 8.16% | 1.03 [0.49-2.17] | 0.942 | 1.000 |
| HOXA10 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA11-AS | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA11 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA13 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA1 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA2 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA3 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA4 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA5 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA6 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA7 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXA9 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| HOXB13 | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| HOXB1 | 101 | 2 | 1.98% | 196 | 16 | 8.16% | 4.40 [1.26-15.37] | 0.051 | 0.507 |
| HOXB2 | 101 | 2 | 1.98% | 196 | 16 | 8.16% | 4.40 [1.26-15.37] | 0.051 | 0.507 |
| HOXB3 | 101 | 2 | 1.98% | 196 | 16 | 8.16% | 4.40 [1.26-15.37] | 0.051 | 0.507 |
| HOXB4 | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| HOXB5 | 101 | 2 | 1.98% | 196 | 16 | 8.16% | 4.40 [1.26-15.37] | 0.051 | 0.507 |
| HOXB6 | 101 | 2 | 1.98% | 196 | 16 | 8.16% | 4.40 [1.26-15.37] | 0.051 | 0.507 |
| HOXB7 | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| HOXB8 | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| HOXB9 | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| HPS3 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| HPYR1 | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| HRH3 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| RBFOX3 | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| HRNR | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| HS3ST2 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| HS3ST4 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| HS3ST6 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| HSD11B1 | 101 | 6 | 5.94% | 196 | 22 | 11.22% | 2.00 [0.91-4.39] | 0.146 | 0.535 |
| HSD17B7 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| HSD3B7 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| HSF1 | 101 | 18 | 17.82% | 196 | 50 | 25.51% | 1.58 [0.95-2.62] | 0.137 | 0.535 |
| HSF5 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| HSFY2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HSPA6 | 101 | 7 | 6.93% | 196 | 19 | 9.69% | 1.44 [0.68-3.07] | 0.427 | 0.791 |
| HSPA7 | 101 | 9 | 8.91% | 196 | 22 | 11.22% | 1.29 [0.65-2.56] | 0.538 | 0.835 |
| HTR3C | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| HTR3D | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| HTR3E | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| HTRA4 | 101 | 12 | 11.88% | 196 | 39 | 19.90% | 1.84 [1.03-3.31] | 0.086 | 0.507 |
| IARS2 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| ICAM2 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| IDH2 | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| IDO1 | 101 | 13 | 12.87% | 196 | 32 | 16.33% | 1.32 [0.74-2.37] | 0.432 | 0.798 |
| IDO2 | 101 | 13 | 12.87% | 196 | 32 | 16.33% | 1.32 [0.74-2.37] | 0.432 | 0.798 |
| IERS5 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| IFI16 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| IFNG | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| IFT140 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| IFT20 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| IFT52 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| IGF1R | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| IGF2BP1 | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| IGF2BP2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>IGF2BP3</i> | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>IGFALS</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>IGFBP4</i> | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| <i>IGFN1</i> | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| <i>IGHMBP2</i> | 101 | 15 | 14.85% | 196 | 37 | 18.88% | 1.33 [0.77-2.31] | 0.388 | 0.757 |
| <i>IGSF22</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>IGSF6</i> | 101 | 6 | 5.94% | 196 | 2 | 1.02% | 0.16 [0.042-0.64] | 2.82E-02 | 0.507 |
| <i>IGSF8</i> | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| <i>IGSF9</i> | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| <i>IKBKB</i> | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| <i>IKBKE</i> | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| <i>IKZF3</i> | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| <i>IL10</i> | 101 | 6 | 5.94% | 196 | 25 | 12.76% | 2.31 [1.06-5.03] | 0.076 | 0.507 |
| <i>IL11RA</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>IL11</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>IL18BP</i> | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| <i>IL19</i> | 101 | 6 | 5.94% | 196 | 25 | 12.76% | 2.31 [1.06-5.03] | 0.076 | 0.507 |
| <i>IL1RAP</i> | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| <i>IL20</i> | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| <i>IL21R</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>IL22</i> | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| <i>IL24</i> | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| <i>IL26</i> | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| <i>IL27</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>IL32</i> | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| <i>IL4R</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>IL6R</i> | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| <i>IL6</i> | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>IL7</i> | 101 | 14 | 13.86% | 196 | 47 | 23.98% | 1.96 [1.13-3.39] | 4.33E-02 | 0.507 |
| <i>ILDR2</i> | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| <i>ILF2</i> | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| <i>IMPA1</i> | 101 | 18 | 17.82% | 196 | 46 | 23.47% | 1.41 [0.85-2.35] | 0.263 | 0.643 |
| <i>IMPAD1</i> | 101 | 14 | 13.86% | 196 | 29 | 14.80% | 1.08 [0.61-1.92] | 0.828 | 1.000 |
| <i>INMT</i> | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>INO80E</i> | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| <i>INPPL1</i> | 101 | 5 | 4.95% | 196 | 8 | 4.08% | 0.82 [0.31-2.13] | 0.729 | 0.986 |
| <i>INSC</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>INSM2</i> | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>INSRR</i> | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| <i>INTS2</i> | 101 | 9 | 8.91% | 196 | 32 | 16.33% | 1.99 [1.03-3.85] | 0.084 | 0.507 |
| <i>INTS3</i> | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| <i>INTS4</i> | 101 | 10 | 9.90% | 196 | 21 | 10.71% | 1.09 [0.56-2.13] | 0.828 | 1.000 |
| <i>INTS7</i> | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| <i>INTS8</i> | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| <i>IPO9</i> | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| <i>IQCG</i> | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| <i>IQCK</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>IQGAP1</i> | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| <i>IQGAP3</i> | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| <i>IRAK3</i> | 101 | 2 | 1.98% | 196 | 9 | 4.59% | 2.38 [0.65-8.76] | 0.273 | 0.643 |
| <i>IRF2BP2</i> | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| <i>IRF6</i> | 101 | 6 | 5.94% | 196 | 22 | 11.22% | 2.00 [0.91-4.39] | 0.146 | 0.535 |
| <i>IRS2</i> | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>ISG20L2</i> | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| <i>ISG20</i> | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>ISOC2</i> | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| <i>ITCH</i> | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| <i>ITGA10</i> | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| <i>ITGA3</i> | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| <i>ITGAD</i> | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| <i>ITGAL</i> | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| <i>ITGAM</i> | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| <i>ITGAX</i> | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| <i>ITGB3</i> | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| <i>ITGB4</i> | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| <i>ITLN1</i> | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| <i>ITLN2</i> | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| <i>ITPKB</i> | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| <i>ITPRIPL2</i> | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| <i>IVL</i> | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| <i>IVNS1ABP</i> | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| JAZF1 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| JMJD4 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| KDM8 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| JMJD6 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| JMJD8 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| JPH1 | 101 | 17 | 16.83% | 196 | 42 | 21.43% | 1.35 [0.80-2.27] | 0.348 | 0.722 |
| JPH2 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| JRK | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| JTB | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| KATNAL1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| KBTBD2 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| KCNB1 | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| KCNB2 | 101 | 15 | 14.85% | 196 | 39 | 19.90% | 1.42 [0.82-2.46] | 0.287 | 0.650 |
| KCNC1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| KCNC2 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| KCNE3 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| KCNG1 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| KCNH1 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| KCNH6 | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| KCNJ10 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| KCNJ11 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| KCNJ16 | 101 | 4 | 3.96% | 196 | 21 | 10.71% | 2.91 [1.16-7.31] | 0.056 | 0.507 |
| KCNJ2 | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| KCNJ9 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| KCNK15 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| KCNK1 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| KCNK2 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| KCNK9 | 101 | 17 | 16.83% | 196 | 50 | 25.51% | 1.69 [1.01-2.83] | 0.092 | 0.507 |
| KCNMB2 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| KCNMB3 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| KCNMB4 | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| KCNN3 | 101 | 8 | 7.92% | 196 | 13 | 6.63% | 0.83 [0.38-1.78] | 0.682 | 0.943 |
| KCNQ2 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| KCNQ3 | 101 | 14 | 13.86% | 196 | 55 | 28.06% | 2.42 [1.41-4.16] | 7.11E-03 | 0.507 |
| KCNS1 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| KCNS2 | 101 | 16 | 15.84% | 196 | 53 | 27.04% | 1.97 [1.17-3.31] | 3.23E-02 | 0.507 |
| KCNT2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| KCNU1 | 101 | 9 | 8.91% | 196 | 37 | 18.88% | 2.38 [1.24-4.55] | 2.79E-02 | 0.507 |
| KCNV1 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| KCTD13 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| KCTD14 | 101 | 9 | 8.91% | 196 | 19 | 9.69% | 1.10 [0.55-2.21] | 0.827 | 1.000 |
| KCTD21 | 101 | 9 | 8.91% | 196 | 18 | 9.18% | 1.03 [0.51-2.09] | 0.938 | 1.000 |
| KCTD2 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| KCTD3 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| KCTD5 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| KDM2A | 101 | 11 | 10.89% | 196 | 16 | 8.16% | 0.73 [0.37-1.43] | 0.440 | 0.800 |
| KDM5B | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| KDM5D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KDSR | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| KEL | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| KERA | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| KHDRBS3 | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| KIAA0040 | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| KIAA0087 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| KIAA0100 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| SPIDR | 101 | 13 | 12.87% | 196 | 28 | 14.29% | 1.13 [0.62-2.04] | 0.738 | 0.996 |
| KIAA0391 | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TTI1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| KIAA0556 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| CLUHP3 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| ZSWIM8 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| MAP10 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| KIAA1614 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| KIAA1755 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| KIF14 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| KIF19 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| KIF21B | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| KIF22 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| KIF26B | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| KIF2B | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| KIF7 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| KIFAP3 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| KIFC2 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| KIR2DL1 | 101 | 3 | 2.97% | 196 | 6 | 3.06% | 1.03 [0.32-3.36] | 0.965 | 1.000 |
| KIR2DL3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| KIR2DL4 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| KIR3DL1 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| KIR3DL3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| KISS1 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| KITLG | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| KLC2 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| KLF10 | 101 | 15 | 14.85% | 196 | 56 | 28.57% | 2.29 [1.35-3.89] | 9.81E-03 | 0.507 |
| KLHDC8A | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| KLHDC9 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| KLHL12 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| KLHL20 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| KLHL24 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| KLHL25 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| KLHL35 | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| KLHL38 | 101 | 14 | 13.86% | 196 | 57 | 29.08% | 2.55 [1.49-4.37] | 4.36E-03 | 0.507 |
| KLHL6 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| KLHL7 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| KMO | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| KPNA2 | 101 | 10 | 9.90% | 196 | 27 | 13.78% | 1.45 [0.76-2.77] | 0.340 | 0.716 |
| KPNB1 | 101 | 2 | 1.98% | 196 | 8 | 4.08% | 2.11 [0.56-7.86] | 0.352 | 0.722 |
| KPRP | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| KREMEN2 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| KRR1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| KRT10 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| KRT12 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| KRT222 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| KRT23 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| KRT24 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| KRT25 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| KRT26 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| KRT27 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| KRT28 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| KRT34 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| KRTAP5-10 | 101 | 10 | 9.90% | 196 | 18 | 9.18% | 0.92 [0.47-1.82] | 0.841 | 1.000 |
| KRTAP5-11 | 101 | 10 | 9.90% | 196 | 18 | 9.18% | 0.92 [0.47-1.82] | 0.841 | 1.000 |
| KRTAP5-7 | 101 | 10 | 9.90% | 196 | 20 | 10.20% | 1.03 [0.53-2.02] | 0.935 | 1.000 |
| KRTAP5-8 | 101 | 10 | 9.90% | 196 | 20 | 10.20% | 1.03 [0.53-2.02] | 0.935 | 1.000 |
| KRTAP5-9 | 101 | 10 | 9.90% | 196 | 18 | 9.18% | 0.92 [0.47-1.82] | 0.841 | 1.000 |
| KRTCAP2 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| KSR1 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| L3MBTL1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| LACTB2 | 101 | 16 | 15.84% | 196 | 39 | 19.90% | 1.32 [0.77-2.26] | 0.395 | 0.770 |
| LAD1 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| LAMA5 | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| LAMB3 | 101 | 6 | 5.94% | 196 | 23 | 11.73% | 2.11 [0.96-4.60] | 0.118 | 0.526 |
| LAMC1 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| LAMC2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| LAMP3 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| LAPTM4B | 101 | 16 | 15.84% | 196 | 53 | 27.04% | 1.97 [1.17-3.31] | 3.23E-02 | 0.507 |
| LASP1 | 101 | 4 | 3.96% | 196 | 11 | 5.61% | 1.44 [0.54-3.85] | 0.540 | 0.837 |
| CERS2 | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| LAT | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| LAX1 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| LBP | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| LBR | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| LCE1A | 101 | 8 | 7.92% | 196 | 12 | 6.12% | 0.76 [0.35-1.65] | 0.559 | 0.852 |
| LCE1B | 101 | 8 | 7.92% | 196 | 12 | 6.12% | 0.76 [0.35-1.65] | 0.559 | 0.852 |
| LCE1C | 101 | 10 | 9.90% | 196 | 14 | 7.14% | 0.70 [0.34-1.43] | 0.411 | 0.774 |
| LCE1D | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| LCE1E | 101 | 10 | 9.90% | 196 | 12 | 6.12% | 0.59 [0.28-1.24] | 0.243 | 0.612 |
| LCE1F | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LCE2A | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| LCE2B | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LCE2C | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LCE2D | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LCE3A | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LCE3B | 101 | 25 | 24.75% | 196 | 46 | 23.47% | 0.93 [0.58-1.49] | 0.806 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| LCE3C | 101 | 35 | 34.65% | 196 | 65 | 33.16% | 0.94 [0.61-1.43] | 0.797 | 1.000 |
| LCE3D | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LCE3E | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LCE4A | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LCE5A | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LCE6A | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| LCMT1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| LDHAL6A | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| LDHA | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| LDHC | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| LEFTY1 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| LEFTY2 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| LELP1 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| LEMD1 | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| LEMD3 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| LENEP | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |
| LETM2 | 101 | 12 | 11.88% | 196 | 44 | 22.45% | 2.15 [1.20-3.83] | 2.99E-02 | 0.507 |
| LGALS3BP | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| LGALS8 | 101 | 7 | 6.93% | 196 | 19 | 9.69% | 1.44 [0.68-3.07] | 0.427 | 0.791 |
| LGALS9C | 101 | 6 | 5.94% | 196 | 7 | 3.57% | 0.59 [0.23-1.50] | 0.349 | 0.722 |
| LGALS9 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| LGR5 | 101 | 1 | 0.99% | 196 | 13 | 6.63% | 7.10 [1.27-39.64] | 0.061 | 0.507 |
| LGR6 | 101 | 8 | 7.92% | 196 | 25 | 12.76% | 1.70 [0.84-3.43] | 0.213 | 0.588 |
| LHX1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| LHX4 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| LHX9 | 101 | 5 | 4.95% | 196 | 23 | 11.73% | 2.55 [1.10-5.90] | 0.066 | 0.507 |
| LIG3 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| LIMD2 | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| LIME1 | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| LIN28B | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| LIN7A | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| LIN9 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| LINGO4 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| LIPH | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| LIPT2 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| LITAF | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| LIX1L | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| LLGL2 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| LLPH | 101 | 2 | 1.98% | 196 | 8 | 4.08% | 2.11 [0.56-7.86] | 0.352 | 0.722 |
| LMAN1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| LMF1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| LMLN | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| LMNA | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| LMOD1 | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| LMX1A | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| LOC10012678 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| LOC10013098 | 101 | 10 | 9.90% | 196 | 17 | 8.67% | 0.86 [0.43-1.72] | 0.728 | 0.986 |
| LOC10013149 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| LOC10013436 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| LOC10019098 | 101 | 6 | 5.94% | 196 | 2 | 1.02% | 0.16 [0.042-0.64] | 2.82E-02 | 0.507 |
| LOC148696 | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| LOC154761 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| LOC220729 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| LOC388242 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| LOC391322 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| LOC401463 | 101 | 14 | 13.86% | 196 | 35 | 17.86% | 1.35 [0.77-2.38] | 0.381 | 0.750 |
| LOC441204 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| LOC606724 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| LOC646214 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| LOC646762 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| LOC652276 | 101 | 9 | 8.91% | 196 | 5 | 2.55% | 0.27 [0.10-0.69] | 2.12E-02 | 0.507 |
| LOC653653 | 101 | 7 | 6.93% | 196 | 33 | 16.84% | 2.72 [1.33-5.57] | 2.17E-02 | 0.507 |
| LOC728024 | 101 | 11 | 10.89% | 196 | 53 | 27.04% | 3.03 [1.68-5.46] | 1.92E-03 | 0.507 |
| LOC728989 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| LOR | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| LPGAT1 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| LPIN3 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| LPO | 101 | 6 | 5.94% | 196 | 26 | 13.27% | 2.42 [1.12-5.25] | 0.060 | 0.507 |
| LPP | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| LRCH3 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| LRFN4 | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>LRP12</i> | 101 | 17 | 16.83% | 196 | 52 | 26.53% | 1.78 [1.07-2.98] | 0.063 | 0.507 |
| <i>LRP5</i> | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| <i>LRRC10B</i> | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| <i>LRRC10</i> | 101 | 2 | 1.98% | 196 | 16 | 8.16% | 4.40 [1.26-15.37] | 0.051 | 0.507 |
| <i>LRRC14</i> | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| <i>LRRC15</i> | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| <i>LRRC24</i> | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| <i>LRRC28</i> | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| <i>LRRC32</i> | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| <i>NRROS</i> | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| <i>LRRC37A2</i> | 101 | 11 | 10.89% | 196 | 16 | 8.16% | 0.73 [0.37-1.43] | 0.440 | 0.800 |
| <i>LRRC37A3</i> | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| <i>LRRC37A</i> | 101 | 8 | 7.92% | 196 | 9 | 4.59% | 0.56 [0.24-1.28] | 0.248 | 0.623 |
| <i>LRRC45</i> | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| <i>LRRC46</i> | 101 | 1 | 0.99% | 196 | 10 | 5.10% | 5.38 [0.95-30.54] | 0.111 | 0.511 |
| <i>LRRC52</i> | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| <i>LRRC59</i> | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| <i>PPP1R42</i> | 101 | 15 | 14.85% | 196 | 40 | 20.41% | 1.47 [0.85-2.53] | 0.245 | 0.616 |
| <i>LRRC69</i> | 101 | 18 | 17.82% | 196 | 46 | 23.47% | 1.41 [0.85-2.35] | 0.263 | 0.643 |
| <i>LRRC6</i> | 101 | 15 | 14.85% | 196 | 56 | 28.57% | 2.29 [1.35-3.89] | 9.81E-03 | 0.507 |
| <i>LRRCC1</i> | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |
| <i>LRRN2</i> | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| <i>LRTOMT</i> | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| <i>LSG1</i> | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| <i>LSM14B</i> | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| <i>LSM1</i> | 101 | 11 | 10.89% | 196 | 47 | 23.98% | 2.58 [1.43-4.67] | 8.55E-03 | 0.507 |
| <i>LSM5</i> | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>LUC7L3</i> | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| <i>LUC7L</i> | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| <i>LUM</i> | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>LY6D</i> | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| <i>LY6E</i> | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| <i>LY6H</i> | 101 | 15 | 14.85% | 196 | 50 | 25.51% | 1.96 [1.15-3.35] | 3.75E-02 | 0.507 |
| <i>LY6K</i> | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| <i>LY96</i> | 101 | 17 | 16.83% | 196 | 41 | 20.92% | 1.31 [0.77-2.21] | 0.401 | 0.774 |
| <i>LY9</i> | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| <i>LYNX1</i> | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| <i>LYN</i> | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| <i>LYPD2</i> | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| <i>LYPLA1</i> | 101 | 12 | 11.88% | 196 | 30 | 15.31% | 1.34 [0.73-2.45] | 0.423 | 0.787 |
| <i>LYPLA1</i> | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| <i>LYRM1</i> | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| <i>LYSMD1</i> | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| <i>LYSMD4</i> | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| <i>LYST</i> | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| <i>LYZL6</i> | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| <i>LYZ</i> | 101 | 3 | 2.97% | 196 | 18 | 9.18% | 3.30 [1.16-9.41] | 0.060 | 0.507 |
| <i>MAEL</i> | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| <i>MAF1</i> | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| <i>MAFA</i> | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| <i>MAFB</i> | 101 | 3 | 2.97% | 196 | 6 | 3.06% | 1.03 [0.32-3.36] | 0.965 | 1.000 |
| <i>MAFG</i> | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| <i>MAGEF1</i> | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| <i>MAK16</i> | 101 | 4 | 3.96% | 196 | 10 | 5.10% | 1.30 [0.48-3.53] | 0.661 | 0.935 |
| <i>MAL2</i> | 101 | 15 | 14.85% | 196 | 59 | 30.10% | 2.47 [1.46-4.18] | 4.76E-03 | 0.507 |
| <i>MALT1</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>MAN2A2</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>MANBAL</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>MAP1LC3A</i> | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| <i>MAP1LC3C</i> | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| <i>MAP2K4</i> | 101 | 0 | 0.00% | 196 | 1 | 0.51% | 3.2e+07 [0e+00-Inf] | 0.997 | 1.000 |
| <i>MAP2K6</i> | 101 | 5 | 4.95% | 196 | 22 | 11.22% | 2.43 [1.05-5.63] | 0.083 | 0.507 |
| <i>MAP3K13</i> | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| <i>MAP3K3</i> | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| <i>MAP6D1</i> | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| <i>MAP6</i> | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| <i>MAPK15</i> | 101 | 17 | 16.83% | 196 | 50 | 25.51% | 1.69 [1.01-2.83] | 0.092 | 0.507 |
| <i>MAPK3</i> | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| <i>MAPK7</i> | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| <i>MAPK8IP3</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>MAPKAPK2</i> | 101 | 6 | 5.94% | 196 | 25 | 12.76% | 2.31 [1.06-5.03] | 0.076 | 0.507 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| MARCH10 | 101 | 8 | 7.92% | 196 | 31 | 15.82% | 2.18 [1.10-4.34] | 0.061 | 0.507 |
| MARCH9 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| MARK1 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| MATN2 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| MATN4 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| MAZ | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| MBIP | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| MBTD1 | 101 | 4 | 3.96% | 196 | 18 | 9.18% | 2.45 [0.97-6.23] | 0.114 | 0.512 |
| MC3R | 101 | 8 | 7.92% | 196 | 12 | 6.12% | 0.76 [0.35-1.65] | 0.559 | 0.852 |
| MCCC1 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| MCF2L2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| MCL1 | 101 | 9 | 8.91% | 196 | 16 | 8.16% | 0.91 [0.44-1.86] | 0.826 | 1.000 |
| MCM4 | 101 | 14 | 13.86% | 196 | 27 | 13.78% | 0.99 [0.55-1.78] | 0.984 | 1.000 |
| MCTP2 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| MDM1 | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| MDM2 | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| MDM4 | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| MED13 | 101 | 9 | 8.91% | 196 | 33 | 16.84% | 2.07 [1.08-3.98] | 0.068 | 0.507 |
| MED1 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| MED24 | 101 | 5 | 4.95% | 196 | 11 | 5.61% | 1.14 [0.46-2.84] | 0.811 | 1.000 |
| MED30 | 101 | 15 | 14.85% | 196 | 56 | 28.57% | 2.29 [1.35-3.89] | 9.81E-03 | 0.507 |
| MEF2A | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| MEF2D | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| MEFV | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| MESP1 | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| MESP2 | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| METRNL | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| METRNL | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| METTL11B | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| METTL1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| METTL2A | 101 | 9 | 8.91% | 196 | 34 | 17.35% | 2.15 [1.12-4.12] | 0.055 | 0.507 |
| METTL9 | 101 | 6 | 5.94% | 196 | 2 | 1.02% | 0.16 [0.042-0.64] | 2.82E-02 | 0.507 |
| MEX3A | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| MFAP4 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| MFG8 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| MFN1 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| MFS11 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| MFS3 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| MGAT5B | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| MGC16275 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| MGC2889 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| MGRN1 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| MGST3 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| MIA3 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| MIF4G | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| MIPOL1 | 101 | 0 | 0.00% | 196 | 11 | 5.61% | 5.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| MIXL1 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| MKRN1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| MKS1 | 101 | 6 | 5.94% | 196 | 26 | 13.27% | 2.42 [1.12-5.25] | 0.060 | 0.507 |
| MLLT11 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| MLLT6 | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| MLST8 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| MMD | 101 | 8 | 7.92% | 196 | 20 | 10.20% | 1.32 [0.64-2.71] | 0.525 | 0.818 |
| MMP16 | 101 | 17 | 16.83% | 196 | 50 | 25.51% | 1.69 [1.01-2.83] | 0.092 | 0.507 |
| MMP24 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| MMP25 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| MMP28 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| MMP9 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| MNDA | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| MOCS3 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| MOGAT2 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| MON2 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| MARC1 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| MARC2 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| MOS | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| MPG | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| MPO | 101 | 6 | 5.94% | 196 | 26 | 13.27% | 2.42 [1.12-5.25] | 0.060 | 0.507 |
| MPP6 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| MPV17L | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| MPZL1 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| MPZ | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| MR1 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| MRC2 | 101 | 8 | 7.92% | 196 | 34 | 17.35% | 2.44 [1.23-4.82] | 3.12E-02 | 0.507 |
| MRGPRD | 101 | 16 | 15.84% | 196 | 39 | 19.90% | 1.32 [0.77-2.26] | 0.395 | 0.770 |
| MRGPRF | 101 | 16 | 15.84% | 196 | 43 | 21.94% | 1.49 [0.88-2.54] | 0.214 | 0.591 |
| MRGPRX1 | 101 | 10 | 9.90% | 196 | 7 | 3.57% | 0.34 [0.15-0.78] | 3.26E-02 | 0.507 |
| MRM1 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| MRPL10 | 101 | 1 | 0.99% | 196 | 10 | 5.10% | 5.38 [0.95-30.54] | 0.111 | 0.511 |
| MRPL11 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| MRPL12 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| MRPL13 | 101 | 15 | 14.85% | 196 | 53 | 27.04% | 2.12 [1.25-3.61] | 1.95E-02 | 0.507 |
| MRPL15 | 101 | 12 | 11.88% | 196 | 30 | 15.31% | 1.34 [0.73-2.45] | 0.423 | 0.787 |
| MRPL21 | 101 | 15 | 14.85% | 196 | 38 | 19.39% | 1.38 [0.80-2.38] | 0.335 | 0.716 |
| MRPL24 | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| MRPL27 | 101 | 4 | 3.96% | 196 | 18 | 9.18% | 2.45 [0.97-6.23] | 0.114 | 0.512 |
| MRPL28 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| MRPL38 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| MRPL45 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| MRPL46 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-inf] | 0.992 | 1.000 |
| MRPL47 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| MRPL48 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| MRPL55 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| MRPL9 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| MRPS11 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-inf] | 0.992 | 1.000 |
| MRPS14 | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| MRPS16 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-inf] | 0.992 | 1.000 |
| MRPS21 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| MRPS23 | 101 | 6 | 5.94% | 196 | 26 | 13.27% | 2.42 [1.12-5.25] | 0.060 | 0.507 |
| MRPS28 | 101 | 17 | 16.83% | 196 | 48 | 24.49% | 1.60 [0.96-2.68] | 0.133 | 0.535 |
| MRPS34 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| MRPS7 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| MRS2P2 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| MSC | 101 | 15 | 14.85% | 196 | 42 | 21.43% | 1.56 [0.91-2.69] | 0.175 | 0.535 |
| MSI2 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| MSL1 | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| MSLN | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| MSRB3 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| MSTO1 | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| MSTO2P | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| MSX2P1 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| MTBP | 101 | 15 | 14.85% | 196 | 53 | 27.04% | 2.12 [1.25-3.61] | 1.95E-02 | 0.507 |
| MTDH | 101 | 16 | 15.84% | 196 | 53 | 27.04% | 1.97 [1.17-3.31] | 3.23E-02 | 0.507 |
| MTFR1 | 101 | 15 | 14.85% | 196 | 37 | 18.88% | 1.33 [0.77-2.31] | 0.388 | 0.757 |
| MTHFD2L | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| MTMR11 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| MTMR4 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| MTR | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| MTSS1 | 101 | 16 | 15.84% | 196 | 59 | 30.10% | 2.29 [1.37-3.83] | 8.37E-03 | 0.507 |
| MTVR2 | 101 | 7 | 6.93% | 196 | 23 | 11.73% | 1.79 [0.85-3.74] | 0.198 | 0.570 |
| MTX1 | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |
| MUC1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| MUC20 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| MUC4 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| MVP | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| MXRA7 | 101 | 3 | 2.97% | 196 | 14 | 7.14% | 2.51 [0.86-7.30] | 0.155 | 0.535 |
| MYADML2 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| MYBL1 | 101 | 15 | 14.85% | 196 | 38 | 19.39% | 1.38 [0.80-2.38] | 0.335 | 0.716 |
| MYBL2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| MYBPH | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| MYCBPAP | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| MYC | 101 | 14 | 13.86% | 196 | 64 | 32.65% | 3.01 [1.76-5.15] | 7.10E-04 | 0.507 |
| MYEOV | 101 | 21 | 20.79% | 196 | 54 | 27.55% | 1.45 [0.90-2.34] | 0.205 | 0.573 |
| MYF5 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| MYF6 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| MYH11 | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| MYH7B | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| MYL4 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| MYL9 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| MYLPF | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| MYO15B | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| MYO16 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-inf] | 0.992 | 1.000 |
| MYO18A | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| MYO19 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| MYO1D | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| MYO7A | 101 | 8 | 7.92% | 196 | 20 | 10.20% | 1.32 [0.64-2.71] | 0.525 | 0.818 |
| MYOC | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| MYOD1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| MYOG | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| MYOZ1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| KAT8 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| KAT7 | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| KAT6A | 101 | 16 | 15.84% | 196 | 31 | 15.82% | 1.00 [0.57-1.73] | 0.995 | 1.000 |
| KAT6B | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| MYT1 | 101 | 9 | 8.91% | 196 | 11 | 5.61% | 0.61 [0.28-1.31] | 0.287 | 0.650 |
| NAAA | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| NAALAD2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| NACA2 | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| NADSYN1 | 101 | 10 | 9.90% | 196 | 24 | 12.24% | 1.27 [0.66-2.44] | 0.549 | 0.851 |
| NAGPA | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| NAIP | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| NAP1L1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| NARF | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| NARS2 | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| NAT14 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| NAA60 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| NAT9 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| NAV1 | 101 | 7 | 6.93% | 196 | 23 | 11.73% | 1.79 [0.85-3.74] | 0.198 | 0.570 |
| NAV3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| NBN | 101 | 18 | 17.82% | 196 | 50 | 25.51% | 1.58 [0.95-2.62] | 0.137 | 0.535 |
| NBPF10 | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| NBPF14 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| NBPF15 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| NBPF7 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| NBPF9 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| NCALD | 101 | 17 | 16.83% | 196 | 55 | 28.06% | 1.93 [1.16-3.21] | 3.42E-02 | 0.507 |
| NCBP2 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| NCF2 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| NCOA2 | 101 | 16 | 15.84% | 196 | 40 | 20.41% | 1.36 [0.80-2.33] | 0.342 | 0.716 |
| NCOA3 | 101 | 5 | 4.95% | 196 | 7 | 3.57% | 0.71 [0.27-1.90] | 0.569 | 0.855 |
| NCOA5 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| NCOA6 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| LINC00029 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| LINC00051 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| LINC00052 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| FBXL19-AS1 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| LINC00685 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| CRYM-AS1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| TTY14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM224B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00235 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| NCSTN | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| NDE1 | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| NDRG1 | 101 | 16 | 15.84% | 196 | 55 | 28.06% | 2.07 [1.23-3.48] | 2.09E-02 | 0.507 |
| NDRG3 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| NDST2 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| NDUFAB1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| NDUFB10 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| NDUFB2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| NDUFB5 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| NDUFB9 | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| NDUFC2 | 101 | 9 | 8.91% | 196 | 20 | 10.20% | 1.16 [0.58-2.32] | 0.722 | 0.980 |
| NDUFS2 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| NDUFS8 | 101 | 9 | 8.91% | 196 | 22 | 11.22% | 1.29 [0.65-2.56] | 0.538 | 0.835 |
| NDUFV1 | 101 | 9 | 8.91% | 196 | 20 | 10.20% | 1.16 [0.58-2.32] | 0.722 | 0.980 |
| NECAB1 | 101 | 18 | 17.82% | 196 | 47 | 23.98% | 1.45 [0.87-2.42] | 0.226 | 0.598 |
| NEK2 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| NEK7 | 101 | 5 | 4.95% | 196 | 22 | 11.22% | 2.43 [1.05-5.63] | 0.083 | 0.507 |
| NEK8 | 101 | 3 | 2.97% | 196 | 9 | 4.59% | 1.57 [0.52-4.80] | 0.505 | 0.805 |
| NENF | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| NES | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| NEU3 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| NEURL2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| NEUROD2 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| NEUROD6 | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| NF1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| NFASC | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| NFATC2IP | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| NFATC2 | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| NFE2L1 | 101 | 1 | 0.99% | 196 | 13 | 6.63% | 7.10 [1.27-39.64] | 0.061 | 0.507 |
| NFE2L3 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| NFKBIA | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TONSL | 101 | 19 | 18.81% | 196 | 49 | 25.00% | 1.44 [0.87-2.37] | 0.231 | 0.599 |
| NFS1 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| NGFR | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| NGRN | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| NHLH1 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| NHLRC4 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| NID1 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| NIPAL2 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| NIT1 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| NKAIN3 | 101 | 14 | 13.86% | 196 | 32 | 16.33% | 1.21 [0.69-2.15] | 0.578 | 0.867 |
| NKAIN4 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| NKX2-1 | 101 | 0 | 0.00% | 196 | 11 | 5.61% | 5.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| NKX2-5 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| NKX2-8 | 101 | 0 | 0.00% | 196 | 12 | 6.12% | 5.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| NKX6-3 | 101 | 15 | 14.85% | 196 | 32 | 16.33% | 1.12 [0.64-1.96] | 0.742 | 0.996 |
| NLE1 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| NLGN1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| NLGN4Y | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLK | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| NLRC3 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| NLRP11 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| NLRP13 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| NLRP3 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| NLRP4 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| NLRP8 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| NLRP9 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| NMB | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| NME1-NME2 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| NME1 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| NME2 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| NME3 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| NME4 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| NME7 | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| NMNAT2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| NMRAL1 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| NNAT | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| NOD1 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| NOG | 101 | 9 | 8.91% | 196 | 22 | 11.22% | 1.29 [0.65-2.56] | 0.538 | 0.835 |
| NOL11 | 101 | 9 | 8.91% | 196 | 29 | 14.80% | 1.78 [0.91-3.44] | 0.155 | 0.535 |
| NOM1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| NOMO1 | 101 | 9 | 8.91% | 196 | 3 | 1.53% | 0.16 [0.052-0.49] | 6.71E-03 | 0.507 |
| NOMO2 | 101 | 9 | 8.91% | 196 | 6 | 3.06% | 0.32 [0.13-0.79] | 3.70E-02 | 0.507 |
| NOMO3 | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| NOS1AP | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| NOS2 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| NOTUM | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| NOVA1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| NOXO1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| NPAS3 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| NPAS4 | 101 | 5 | 4.95% | 196 | 8 | 4.08% | 0.82 [0.31-2.13] | 0.729 | 0.986 |
| NPBWR1 | 101 | 12 | 11.88% | 196 | 27 | 13.78% | 1.18 [0.64-2.18] | 0.647 | 0.928 |
| NPBWR2 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| NPB | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| NPEPL1 | 101 | 8 | 7.92% | 196 | 16 | 8.16% | 1.03 [0.49-2.17] | 0.942 | 1.000 |
| NPEPPS | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| NPHS2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| NPIP3 | 101 | 6 | 5.94% | 196 | 2 | 1.02% | 0.16 [0.042-0.64] | 2.82E-02 | 0.507 |
| NPIPA1 | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| NPLOC4 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| NPL | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| NPR1 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| NPRL3 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| NPSR1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>NPTX1</i> | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| <i>NPVF</i> | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>NPW</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>NPY</i> | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>NR1D1</i> | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| <i>NR1I3</i> | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| <i>NR2E1</i> | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| <i>NR2F2</i> | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>NR5A2</i> | 101 | 6 | 5.94% | 196 | 23 | 11.73% | 2.11 [0.96-4.60] | 0.118 | 0.526 |
| <i>NRBP2</i> | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| <i>NRG1</i> | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| <i>NSL1</i> | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| <i>NSMAF</i> | 101 | 14 | 13.86% | 196 | 33 | 16.84% | 1.26 [0.71-2.22] | 0.506 | 0.805 |
| <i>NSMCE1</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>NSMCE2</i> | 101 | 16 | 15.84% | 196 | 58 | 29.59% | 2.23 [1.33-3.74] | 1.06E-02 | 0.507 |
| <i>NT5C3A</i> | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>NT5C</i> | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| <i>NTAN1</i> | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| <i>NTHL1</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>NTN3</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>NTRK1</i> | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| <i>NTRK3</i> | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| <i>NTSR1</i> | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| <i>NUAK2</i> | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| <i>NUBP1</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>NUBP2</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>NUBPL</i> | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| <i>NUCB2</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>NUCKS1</i> | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| <i>NUDCD1</i> | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| <i>NUDCD3</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>NUDT13</i> | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| <i>NUDT16L1</i> | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| <i>NUDT17</i> | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| <i>NUDT4</i> | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>NUDT8</i> | 101 | 10 | 9.90% | 196 | 19 | 9.69% | 0.98 [0.50-1.92] | 0.955 | 1.000 |
| <i>NUF2</i> | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| <i>NUFIP2</i> | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| <i>NUMA1</i> | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| <i>NUP107</i> | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| <i>NUP133</i> | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| <i>NUP210L</i> | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| <i>NUP54</i> | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| <i>NUP85</i> | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| <i>NUPL2</i> | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>NUPR1</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>NVL</i> | 101 | 7 | 6.93% | 196 | 17 | 8.67% | 1.28 [0.59-2.75] | 0.602 | 0.887 |
| <i>NXPH3</i> | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| <i>OAZ3</i> | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| <i>OBSCN</i> | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| <i>OC90</i> | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| <i>OCLM</i> | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| <i>ODF1</i> | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| <i>TENM4</i> | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| <i>OGFR</i> | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| <i>OLFML2B</i> | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| <i>OMP</i> | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| <i>OPA1</i> | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| <i>OPLAH</i> | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| <i>OPN3</i> | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| <i>OPRK1</i> | 101 | 12 | 11.88% | 196 | 29 | 14.80% | 1.29 [0.70-2.36] | 0.491 | 0.805 |
| <i>OPRL1</i> | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| <i>OPTC</i> | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| <i>OR10J1</i> | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| <i>OR10J3</i> | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| <i>OR10J5</i> | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| <i>OR10K1</i> | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| <i>OR10K2</i> | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| <i>OR10R2</i> | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| <i>OR10T2</i> | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| <i>OR10X1</i> | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| OR10Z1 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| OR11L1 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR13G1 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR14A16 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR14C36 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR14I1 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| OR1C1 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR1F1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| OR1F2P | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| OR2A12 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| OR2A14 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| OR2A1 | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| OR2A25 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| OR2A2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| OR2A5 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| OR2A7 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| OR2A9P | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| OR2AK2 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR2AT4 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| OR2B11 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| OR2C1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| OR2C3 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| OR2F1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| OR2F2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| OR2G2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| OR2G3 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| OR2G6 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| OR2L13 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2L1P | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2L2 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2L3 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2L8 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR2M1P | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2M2 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2M3 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2M4 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR2M5 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2M7 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2T10 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| OR2T11 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| OR2T12 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR2T1 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2T27 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| OR2T29 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| OR2T2 | 101 | 6 | 5.94% | 196 | 22 | 11.22% | 2.00 [0.91-4.39] | 0.146 | 0.535 |
| OR2T33 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR2T34 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| OR2T35 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| OR2T3 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| OR2T4 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2T5 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| OR2T6 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| OR2T8 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR2W3 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| OR2W5 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| OR4C6 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| OR4D1 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| OR4D2 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| OR4F5 | 101 | 2 | 1.98% | 196 | 9 | 4.59% | 2.38 [0.65-8.76] | 0.273 | 0.643 |
| OR4F6 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| OR4K1 | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| OR4K2 | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| OR4K5 | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| OR4M1 | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| OR4M2 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| OR4N2 | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| OR4N3P | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| OR4N4 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| OR4P4 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| OR4Q3 | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| OR4S2 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| OR52N5 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| OR6B1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| OR6F1 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| OR6K2 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| OR6K3 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| OR6K6 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| OR6N1 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| OR6N2 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| OR6P1 | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| OR6V1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| OR6W1P | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| OR6Y1 | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| OR9A2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| ORAI3 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| ORMDL3 | 101 | 5 | 4.95% | 196 | 11 | 5.61% | 1.14 [0.46-2.84] | 0.811 | 1.000 |
| OSBPL2 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| OSBPL3 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| OSBPL7 | 101 | 1 | 0.99% | 196 | 10 | 5.10% | 5.38 [0.95-30.54] | 0.111 | 0.511 |
| OSBPL8 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| OSGIN2 | 101 | 18 | 17.82% | 196 | 50 | 25.51% | 1.58 [0.95-2.62] | 0.137 | 0.535 |
| OSR2 | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| OSTM1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| OSTN | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| SLC51A | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| OTOA | 101 | 6 | 5.94% | 196 | 2 | 1.02% | 0.16 [0.042-0.64] | 2.82E-02 | 0.507 |
| OTOP2 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| OTOP3 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| OTUD6B | 101 | 19 | 18.81% | 196 | 49 | 25.00% | 1.44 [0.87-2.37] | 0.231 | 0.599 |
| OTUD7B | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |
| OXR1 | 101 | 18 | 17.82% | 196 | 52 | 26.53% | 1.67 [1.01-2.76] | 0.096 | 0.507 |
| P2RY12 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| P2RY13 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| P2RY14 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| P2RY2 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| P2RY6 | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| P4HA1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| P4HA3 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| P4HB | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| POTEM | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| PAAF1 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| PABPC1L | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| PABPC1 | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| PACS1 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| PAG1 | 101 | 17 | 16.83% | 196 | 48 | 24.49% | 1.60 [0.96-2.68] | 0.133 | 0.535 |
| PAK1 | 101 | 9 | 8.91% | 196 | 23 | 11.73% | 1.36 [0.69-2.68] | 0.458 | 0.805 |
| PAK2 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| PALB2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| PAPPA2 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| PAQR4 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| PAQR6 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| PAWR | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PARD6B | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| PARL | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| PARM1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| PARN | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| PARP10 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| PARP1 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| PARP6 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PAX9 | 101 | 0 | 0.00% | 196 | 12 | 6.12% | 5.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| PBX1 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| PBXIP1 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| PCDH11Y | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCF11 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PCGF2 | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| PCIF1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PCK1 | 101 | 9 | 8.91% | 196 | 16 | 8.16% | 0.91 [0.44-1.86] | 0.826 | 1.000 |
| PCMTD1 | 101 | 13 | 12.87% | 196 | 27 | 13.78% | 1.08 [0.60-1.96] | 0.829 | 1.000 |
| PCMTD2 | 101 | 8 | 7.92% | 196 | 10 | 5.10% | 0.63 [0.28-1.40] | 0.338 | 0.716 |
| PCP4L1 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| PCSK6 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PCTP | 101 | 8 | 7.92% | 196 | 21 | 10.71% | 1.39 [0.68-2.85] | 0.444 | 0.805 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| PCYT1A | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| PCYT2 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| PC | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| PDC | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| PDE1C | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| PDE2A | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| PDE4DIP | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| PDE6G | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| PDE7A | 101 | 15 | 14.85% | 196 | 35 | 17.86% | 1.25 [0.72-2.17] | 0.512 | 0.805 |
| PDE8A | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| PDIA2 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| PDIA3P1 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| PDILT | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| PDK2 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| PDP1 | 101 | 17 | 16.83% | 196 | 53 | 27.04% | 1.83 [1.10-3.05] | 0.052 | 0.507 |
| PDPK1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| PDSS2 | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| PDXDC1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| PDZD9 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| PDZK1P1 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| PDZK1 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| PEA15 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| PEAR1 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| PECAM1 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| PELI3 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| PENK | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| PEX11A | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| PEX11B | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| PEX19 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| PEX2 | 101 | 15 | 14.85% | 196 | 48 | 24.49% | 1.86 [1.09-3.18] | 0.057 | 0.507 |
| PEX5L | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| PF4V1 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| PF4 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| PFDN2 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| PFDN4 | 101 | 12 | 11.88% | 196 | 22 | 11.22% | 0.94 [0.50-1.76] | 0.866 | 1.000 |
| PFKFB2 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| PGA3 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| PGA4 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| PGA5 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| PGAP3 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| PGBD2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| PGBD5 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| CPQ | 101 | 14 | 13.86% | 196 | 53 | 27.04% | 2.30 [1.34-3.96] | 1.14E-02 | 0.507 |
| PGLYRP3 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| PGLYRP4 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| PGM2L1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| PGPEP1L | 101 | 1 | 0.99% | 196 | 10 | 5.10% | 5.38 [0.95-30.54] | 0.111 | 0.511 |
| PGP | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| PGS1 | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| PHACTR1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PHACTR3 | 101 | 10 | 9.90% | 196 | 14 | 7.14% | 0.70 [0.34-1.43] | 0.411 | 0.774 |
| PHB | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| PHF12 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| PHF20L1 | 101 | 14 | 13.86% | 196 | 59 | 30.10% | 2.68 [1.56-4.59] | 2.64E-03 | 0.507 |
| PHF20 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| PHKB | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PHKG2 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| PHLDA1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PHLDA3 | 101 | 7 | 6.93% | 196 | 23 | 11.73% | 1.79 [0.85-3.74] | 0.198 | 0.570 |
| PHOSPHO1 | 101 | 4 | 3.96% | 196 | 17 | 8.67% | 2.30 [0.90-5.88] | 0.143 | 0.535 |
| PHOX2A | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| PI15 | 101 | 14 | 13.86% | 196 | 42 | 21.43% | 1.69 [0.97-2.95] | 0.117 | 0.524 |
| PI3 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| PI4KB | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| PIAS3 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| PIGC | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| PIGM | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| PIGQ | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| PIGR | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| PIGS | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| PIGT | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| PIGU | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| PIGW | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| PIGX | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| PIGZ | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PIK3C2B | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| PIK3CA | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| PIP4K2B | 101 | 4 | 3.96% | 196 | 10 | 5.10% | 1.30 [0.48-3.53] | 0.661 | 0.935 |
| PIP5K1A | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| PIPOX | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| PIP | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| PITPNC1 | 101 | 9 | 8.91% | 196 | 29 | 14.80% | 1.78 [0.91-3.44] | 0.155 | 0.535 |
| PITPNM1 | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| PKD1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| PKHD1L1 | 101 | 14 | 13.86% | 196 | 54 | 27.55% | 2.36 [1.37-4.06] | 9.03E-03 | 0.507 |
| PKIA | 101 | 14 | 13.86% | 196 | 46 | 23.47% | 1.91 [1.10-3.30] | 0.053 | 0.507 |
| PKIG | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PKLR | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| PKMYT1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| PKP1 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| PLA2G10 | 101 | 9 | 8.91% | 196 | 3 | 1.53% | 0.16 [0.052-0.49] | 6.71E-03 | 0.507 |
| PLA2G4A | 101 | 4 | 3.96% | 196 | 15 | 7.65% | 2.01 [0.78-5.19] | 0.226 | 0.598 |
| PLAG1 | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| PLAT | 101 | 14 | 13.86% | 196 | 33 | 16.84% | 1.26 [0.71-2.22] | 0.506 | 0.805 |
| PLAU | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| PLCG1 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| PLCXD1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| PLD5 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| PLEC | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| PLEKHA2 | 101 | 12 | 11.88% | 196 | 39 | 19.90% | 1.84 [1.03-3.31] | 0.086 | 0.507 |
| PLEKHA6 | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| PLEKHA7 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PLEKHA8 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| PLEKHB1 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| PLEKHF2 | 101 | 16 | 15.84% | 196 | 55 | 28.06% | 2.07 [1.23-3.48] | 2.09E-02 | 0.507 |
| PLEKHG7 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| PLEKHO1 | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |
| PLIN1 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| PLK1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| PLTP | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PLXDC1 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| PLXNA2 | 101 | 6 | 5.94% | 196 | 25 | 12.76% | 2.31 [1.06-5.03] | 0.076 | 0.507 |
| PM20D1 | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| PMAIP1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PMEPA1 | 101 | 9 | 8.91% | 196 | 16 | 8.16% | 0.91 [0.44-1.86] | 0.826 | 1.000 |
| PMF1 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| PMM2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PMP2 | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |
| PMVK | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| PNMT | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| PNPO | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| POC1B | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| POGK | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| POGZ | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| POLB | 101 | 14 | 13.86% | 196 | 32 | 16.33% | 1.21 [0.69-2.15] | 0.578 | 0.867 |
| POLD3 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| POLD4 | 101 | 11 | 10.89% | 196 | 17 | 8.67% | 0.78 [0.40-1.52] | 0.536 | 0.834 |
| POLDIP2 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| POLG2 | 101 | 8 | 7.92% | 196 | 26 | 13.27% | 1.78 [0.88-3.57] | 0.175 | 0.535 |
| POLG | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| POLI | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| POLR2H | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| POLR2K | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| POLR3C | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| POLR3E | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| POLR3GL | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| POLR3K | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| POM121L8P | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| POMP | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| POP1 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| POPDC3 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| POTEA | 101 | 12 | 11.88% | 196 | 24 | 12.24% | 1.03 [0.56-1.92] | 0.928 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| POTEB | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| POTEG | 101 | 3 | 2.97% | 196 | 6 | 3.06% | 1.03 [0.32-3.36] | 0.965 | 1.000 |
| POU2F1 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| POU5F1B | 101 | 14 | 13.86% | 196 | 64 | 32.65% | 3.01 [1.76-5.15] | 7.10E-04 | 0.507 |
| PPBPP2 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| PPBP | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| PPDPF | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| PPEF2 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| PPFIA1 | 101 | 19 | 18.81% | 196 | 53 | 27.04% | 1.60 [0.97-2.62] | 0.119 | 0.530 |
| PPFIA2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PPFIA4 | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| PPIAL4D | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| PPIAL4E | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| PPL | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| PPM1D | 101 | 8 | 7.92% | 196 | 34 | 17.35% | 2.44 [1.23-4.82] | 3.12E-02 | 0.507 |
| PPM1E | 101 | 7 | 6.93% | 196 | 29 | 14.80% | 2.33 [1.13-4.81] | 0.055 | 0.507 |
| PPM1H | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| PPME1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| PPOX | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| PPP1CA | 101 | 11 | 10.89% | 196 | 18 | 9.18% | 0.83 [0.43-1.61] | 0.639 | 0.918 |
| PPP1R12A | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| PPP1R12B | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| PPP1R15B | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| PPP1R16A | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| PPP1R16B | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| PPP1R1B | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| PPP1R2 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| PPP1R3D | 101 | 10 | 9.90% | 196 | 13 | 6.63% | 0.65 [0.31-1.33] | 0.321 | 0.700 |
| PPP1R9B | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| PPP2CB | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| PPP2R3B | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| PPP2R3C | 101 | 0 | 0.00% | 196 | 10 | 5.10% | 4.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| PPP2R5A | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| PPP3CB | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| PPP4C | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PPP4R1L | 101 | 9 | 8.91% | 196 | 17 | 8.67% | 0.97 [0.48-1.97] | 0.945 | 1.000 |
| DES12 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| PRAC1 | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| PRCC | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| PRCD | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| PRCP | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| PRDM14 | 101 | 16 | 15.84% | 196 | 39 | 19.90% | 1.32 [0.77-2.26] | 0.395 | 0.770 |
| PRDM1 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| PRDX6 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| PRELP | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| PREP | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| PREX1 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| PREX2 | 101 | 14 | 13.86% | 196 | 35 | 17.86% | 1.35 [0.77-2.38] | 0.381 | 0.750 |
| PRG4 | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| HELZ2 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| PRKAB2 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| PRKAR1A | 101 | 8 | 7.92% | 196 | 25 | 12.76% | 1.70 [0.84-3.43] | 0.213 | 0.588 |
| PRKCA | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| PRKCB | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| PRKCI | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| PRKD1 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| PRKDC | 101 | 14 | 13.86% | 196 | 27 | 13.78% | 0.99 [0.55-1.78] | 0.984 | 1.000 |
| PRKY | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRM1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PRM2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PRM3 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PROCA1 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| PROCR | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| PROX1 | 101 | 6 | 5.94% | 196 | 22 | 11.22% | 2.00 [0.91-4.39] | 0.146 | 0.535 |
| PRPF3 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| PRPF6 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| PRPSAP1 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| PRR11 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| PRR14 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| PRR15L | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| PRR15 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>PRR25</i> | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| <i>PRRT2</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>PRRX1</i> | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| <i>PRSS1</i> | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| <i>PRSS21</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>PRSS22</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>PRSS23</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>PRSS27</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>PRSS30P</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>PRSS33</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>PRSS36</i> | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| <i>PRSS38</i> | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| <i>PRSS41</i> | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| <i>PRSS53</i> | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| <i>PRSS8</i> | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| <i>PRY2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PSAP</i> | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>PSCA</i> | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| <i>PSEN2</i> | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| <i>PSKH2</i> | 101 | 18 | 17.82% | 196 | 47 | 23.98% | 1.45 [0.87-2.42] | 0.226 | 0.598 |
| <i>PSMA6</i> | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>PSMA7</i> | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| <i>PSMB11</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>PSMB3</i> | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| <i>PSMB4</i> | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| <i>PSMB5</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>PSMC5</i> | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| <i>PSMD11</i> | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| <i>PSMD12</i> | 101 | 10 | 9.90% | 196 | 27 | 13.78% | 1.45 [0.76-2.77] | 0.340 | 0.716 |
| <i>PSMD2</i> | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| <i>PSMD3</i> | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| <i>PSMD4</i> | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| <i>PTDSS1</i> | 101 | 16 | 15.84% | 196 | 53 | 27.04% | 1.97 [1.17-3.31] | 3.23E-02 | 0.507 |
| <i>PTGIS</i> | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| <i>PTGS2</i> | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| <i>PTK2</i> | 101 | 18 | 17.82% | 196 | 48 | 24.49% | 1.50 [0.90-2.48] | 0.192 | 0.563 |
| <i>PTK6</i> | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| <i>PTP4A3</i> | 101 | 18 | 17.82% | 196 | 48 | 24.49% | 1.50 [0.90-2.48] | 0.192 | 0.563 |
| <i>PTPN14</i> | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| <i>PTPN1</i> | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| <i>PTPN5</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>PTPN7</i> | 101 | 8 | 7.92% | 196 | 24 | 12.24% | 1.62 [0.80-3.28] | 0.258 | 0.635 |
| <i>PTPRB</i> | 101 | 3 | 2.97% | 196 | 14 | 7.14% | 2.51 [0.86-7.30] | 0.155 | 0.535 |
| <i>PTPRCAP</i> | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| <i>PTPRC</i> | 101 | 5 | 4.95% | 196 | 23 | 11.73% | 2.55 [1.10-5.90] | 0.066 | 0.507 |
| <i>PTPRR</i> | 101 | 3 | 2.97% | 196 | 14 | 7.14% | 2.51 [0.86-7.30] | 0.155 | 0.535 |
| <i>PTPRT</i> | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| <i>PTPRVP</i> | 101 | 8 | 7.92% | 196 | 24 | 12.24% | 1.62 [0.80-3.28] | 0.258 | 0.635 |
| <i>PTRH2</i> | 101 | 9 | 8.91% | 196 | 33 | 16.84% | 2.07 [1.08-3.98] | 0.068 | 0.507 |
| <i>PTTG3P</i> | 101 | 15 | 14.85% | 196 | 39 | 19.90% | 1.42 [0.82-2.46] | 0.287 | 0.650 |
| <i>PTX4</i> | 101 | 7 | 6.93% | 196 | 5 | 2.55% | 0.35 [0.13-0.94] | 0.081 | 0.507 |
| <i>PUF60</i> | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| <i>PURG</i> | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| <i>PVT1</i> | 101 | 14 | 13.86% | 196 | 65 | 33.16% | 3.08 [1.81-5.27] | 5.41E-04 | 0.507 |
| <i>PXDNL</i> | 101 | 13 | 12.87% | 196 | 27 | 13.78% | 1.08 [0.60-1.96] | 0.829 | 1.000 |
| <i>PYCARD</i> | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| <i>PYCR1</i> | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| <i>PYCR2</i> | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| <i>PYDC1</i> | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| <i>PYDC2</i> | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| <i>PYGO2</i> | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| <i>PYHIN1</i> | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| <i>PYY2</i> | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| <i>QPRT</i> | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| <i>QRICH2</i> | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| <i>QRSL1</i> | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| <i>QSER1</i> | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| <i>QSOX1</i> | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| <i>R3HDML</i> | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| <i>RAB11FIP1</i> | 101 | 10 | 9.90% | 196 | 51 | 26.02% | 3.20 [1.74-5.89] | 1.70E-03 | 0.507 |
| <i>RAB11FIP3</i> | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| RAB13 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| RAB19 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| RAB1B | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| RAB21 | 101 | 1 | 0.99% | 196 | 12 | 6.12% | 6.52 [1.16-36.57] | 0.074 | 0.507 |
| RAB22A | 101 | 9 | 8.91% | 196 | 17 | 8.67% | 0.97 [0.48-1.97] | 0.945 | 1.000 |
| RAB25 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| RAB26 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| RAB27B | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| RAB2A | 101 | 16 | 15.84% | 196 | 32 | 16.33% | 1.04 [0.60-1.80] | 0.914 | 1.000 |
| RAB30 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| RAB34 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| RAB37 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| RAB38 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| RAB3GAP2 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| RAB3IP | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| RAB40B | 101 | 2 | 1.98% | 196 | 14 | 7.14% | 3.81 [1.08-13.43] | 0.081 | 0.507 |
| RAB40C | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| RAB4A | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| RAB6A | 101 | 8 | 7.92% | 196 | 11 | 5.61% | 0.69 [0.31-1.53] | 0.443 | 0.805 |
| RABEP2 | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| RABGAP1L | 101 | 4 | 3.96% | 196 | 11 | 5.61% | 1.44 [0.54-3.85] | 0.540 | 0.837 |
| RABIF | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| RAC3 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| RAD21 | 101 | 16 | 15.84% | 196 | 58 | 29.59% | 2.23 [1.33-3.74] | 1.06E-02 | 0.507 |
| RAD51C | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| RAD51D | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| RAD54B | 101 | 17 | 16.83% | 196 | 52 | 26.53% | 1.78 [1.07-2.98] | 0.063 | 0.507 |
| RAD9A | 101 | 11 | 10.89% | 196 | 18 | 9.18% | 0.83 [0.43-1.61] | 0.639 | 0.918 |
| RAE1 | 101 | 9 | 8.91% | 196 | 17 | 8.67% | 0.97 [0.48-1.97] | 0.945 | 1.000 |
| SLC50A1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| RALA | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| RALGAPA1 | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| RALGAPB | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| RALGPS2 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| RALYL | 101 | 15 | 14.85% | 196 | 43 | 21.94% | 1.61 [0.94-2.77] | 0.147 | 0.535 |
| RAP1B | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| RAPGEF5 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| RAPGEFL1 | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| RARA | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| RASAL2 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| RASL10B | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| RASSF3 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| RASSF5 | 101 | 6 | 5.94% | 196 | 25 | 12.76% | 2.31 [1.06-5.03] | 0.076 | 0.507 |
| RASSF6 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| RAX | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| RB1CC1 | 101 | 12 | 11.88% | 196 | 28 | 14.29% | 1.24 [0.67-2.27] | 0.566 | 0.852 |
| RBBP5 | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| RBBP6 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| RBL1 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| RBM12B | 101 | 17 | 16.83% | 196 | 54 | 27.55% | 1.88 [1.13-3.13] | 4.21E-02 | 0.507 |
| RBM12 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| RBM14 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| RBM34 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| RBM38 | 101 | 9 | 8.91% | 196 | 16 | 8.16% | 0.91 [0.44-1.86] | 0.826 | 1.000 |
| RBM39 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| RBM4B | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| RBM4 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| RBM8A | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| RBM1A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM1A3P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM1E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM1F | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM1J | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM2EP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM2FP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM3AP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBPJL | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| RC3H1 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| RCE1 | 101 | 8 | 7.92% | 196 | 13 | 6.63% | 0.83 [0.38-1.78] | 0.682 | 0.943 |
| RCHY1 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| RCOR3 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| RCSD1 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| RD3 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| RDH10 | 101 | 16 | 15.84% | 196 | 41 | 20.92% | 1.41 [0.82-2.40] | 0.294 | 0.650 |
| RDM1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| RECQL4 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| RECQL5 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| RELT | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| REN | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| RFFL | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| RFNG | 101 | 2 | 1.98% | 196 | 14 | 7.14% | 3.81 [1.08-13.43] | 0.081 | 0.507 |
| RFPL4A | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| RFX5 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| RGL1 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| RGMA | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| RGS11 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| RGS13 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| RGS16 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| RGS18 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| RGS19 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| RGS1 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| RGS20 | 101 | 12 | 11.88% | 196 | 30 | 15.31% | 1.34 [0.73-2.45] | 0.423 | 0.787 |
| RGS21 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| RGS22 | 101 | 15 | 14.85% | 196 | 57 | 29.08% | 2.35 [1.39-3.99] | 7.74E-03 | 0.507 |
| RGS2 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| RGS4 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| RGS5 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| RGS7 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| RGS8 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| RGS9 | 101 | 9 | 8.91% | 196 | 24 | 12.24% | 1.43 [0.72-2.81] | 0.388 | 0.757 |
| RGSL1 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| RHBDF1 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| RHBDF2 | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| RHBDL1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| RHBG | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| RHCG | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| RHOD | 101 | 8 | 7.92% | 196 | 12 | 6.12% | 0.76 [0.35-1.65] | 0.559 | 0.852 |
| RHOT2 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| RHOU | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| RHPN1 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| RIMS2 | 101 | 17 | 16.83% | 196 | 53 | 27.04% | 1.83 [1.10-3.05] | 0.052 | 0.507 |
| RIMS4 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| RIN1 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| RIPK2 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| RIT1 | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| RLBP1 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| RNASEL | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| RNF112 | 101 | 4 | 3.96% | 196 | 1 | 0.51% | 0.12 [0.02-0.79] | 0.064 | 0.507 |
| RNF114 | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |
| RNF115 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| RNF121 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| RNF122 | 101 | 4 | 3.96% | 196 | 11 | 5.61% | 1.44 [0.54-3.85] | 0.540 | 0.837 |
| RNF126P1 | 101 | 7 | 6.93% | 196 | 23 | 11.73% | 1.79 [0.85-3.74] | 0.198 | 0.570 |
| RNF135 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| RNF139 | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| RNF151 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| RNF157 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| RNF168 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| RNF169 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| RNF170 | 101 | 13 | 12.87% | 196 | 26 | 13.27% | 1.04 [0.57-1.88] | 0.924 | 1.000 |
| RNF187 | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| RNF19A | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| RNF213 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| RNF2 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| RNF40 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| RNF43 | 101 | 7 | 6.93% | 196 | 29 | 14.80% | 2.33 [1.13-4.81] | 0.055 | 0.507 |
| RNFT1 | 101 | 7 | 6.93% | 196 | 34 | 17.35% | 2.82 [1.38-5.76] | 1.72E-02 | 0.507 |
| RNPEP | 101 | 8 | 7.92% | 196 | 24 | 12.24% | 1.62 [0.80-3.28] | 0.258 | 0.635 |
| RNPS1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| LAMTOR2 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| ROGDI | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| ROMO1 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| RORC | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| RP1L1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| RP1 | 101 | 13 | 12.87% | 196 | 29 | 14.80% | 1.18 [0.65-2.12] | 0.652 | 0.928 |
| RP9P | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| RP9 | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| RPL19 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| RPL23A | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| RPL23P8 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| RPL23 | 101 | 4 | 3.96% | 196 | 9 | 4.59% | 1.17 [0.43-3.20] | 0.801 | 1.000 |
| RPL28 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| RPL30 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| RPL31P11 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| RPL35A | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| RPL38 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| RPL3L | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| RPL7 | 101 | 16 | 15.84% | 196 | 41 | 20.92% | 1.41 [0.82-2.40] | 0.294 | 0.650 |
| RPL8 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| RPLPOP2 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| RPN2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| RPRD1B | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| RPRD2 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| RPRML | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| RPS10P7 | 101 | 7 | 6.93% | 196 | 23 | 11.73% | 1.79 [0.85-3.74] | 0.198 | 0.570 |
| RPS15A | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| RPS17 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| RPS20 | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| RPS21 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| RPS27 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| RPS2P32 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| RPS2 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| RPS3 | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| RPS4Y1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS4Y2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS6KB1 | 101 | 7 | 6.93% | 196 | 34 | 17.35% | 2.82 [1.38-5.76] | 1.72E-02 | 0.507 |
| RPS6KB2 | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| RPS6KC1 | 101 | 6 | 5.94% | 196 | 22 | 11.22% | 2.00 [0.91-4.39] | 0.146 | 0.535 |
| RPSAP52 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| RPTN | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| RPTOR | 101 | 3 | 2.97% | 196 | 12 | 6.12% | 2.13 [0.72-6.28] | 0.250 | 0.623 |
| RPUSD1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| RRM2B | 101 | 16 | 15.84% | 196 | 55 | 28.06% | 2.07 [1.23-3.48] | 2.09E-02 | 0.507 |
| RRN3P1 | 101 | 6 | 5.94% | 196 | 2 | 1.02% | 0.16 [0.042-0.64] | 2.82E-02 | 0.507 |
| RRN3P2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| RRN3P3 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| RRN3 | 101 | 7 | 6.93% | 196 | 3 | 1.53% | 0.21 [0.066-0.66] | 2.55E-02 | 0.507 |
| RRP15 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| RRS1 | 101 | 15 | 14.85% | 196 | 38 | 19.39% | 1.38 [0.80-2.38] | 0.335 | 0.716 |
| RSAD1 | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| RSF1 | 101 | 10 | 9.90% | 196 | 21 | 10.71% | 1.09 [0.56-2.13] | 0.828 | 1.000 |
| RSL1D1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| RSPO2 | 101 | 16 | 15.84% | 196 | 50 | 25.51% | 1.82 [1.08-3.07] | 0.060 | 0.507 |
| RTEL1 | 101 | 7 | 6.93% | 196 | 16 | 8.16% | 1.19 [0.55-2.59] | 0.707 | 0.962 |
| RTN4IP1 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| SNX29 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SNX29P2 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| RUNX1T1 | 101 | 17 | 16.83% | 196 | 48 | 24.49% | 1.60 [0.96-2.68] | 0.133 | 0.535 |
| RUSC1 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| RXFP4 | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| RXRG | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| RYR2 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| S100A10 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| S100A11 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| S100A12 | 101 | 8 | 7.92% | 196 | 13 | 6.63% | 0.83 [0.38-1.78] | 0.682 | 0.943 |
| S100A13 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| S100A14 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| S100A16 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| S100A1 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| S100A2 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| S100A3 | 101 | 8 | 7.92% | 196 | 12 | 6.12% | 0.76 [0.35-1.65] | 0.559 | 0.852 |
| S100A4 | 101 | 8 | 7.92% | 196 | 12 | 6.12% | 0.76 [0.35-1.65] | 0.559 | 0.852 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| S100A5 | 101 | 8 | 7.92% | 196 | 12 | 6.12% | 0.76 [0.35-1.65] | 0.559 | 0.852 |
| S100A6 | 101 | 8 | 7.92% | 196 | 12 | 6.12% | 0.76 [0.35-1.65] | 0.559 | 0.852 |
| S100A7A | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| S100A7L2 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| S100A7 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| S100A8 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| S100A9 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SALL4 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| SAMD10 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| SAMD12 | 101 | 15 | 14.85% | 196 | 56 | 28.57% | 2.29 [1.35-3.89] | 9.81E-03 | 0.507 |
| SAMD14 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| SAMD8 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| SAMHD1 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| SAP30BP | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| PPP6R3 | 101 | 7 | 6.93% | 196 | 23 | 11.73% | 1.79 [0.85-3.74] | 0.198 | 0.570 |
| SARM1 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| SBF1P1 | 101 | 14 | 13.86% | 196 | 30 | 15.31% | 1.12 [0.63-2.00] | 0.740 | 0.996 |
| SBK1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SBK2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| SCAMP3 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| SCAND1 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| SCAND2P | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| SCARB2 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| SCARNA15 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SCARNA16 | 101 | 2 | 1.98% | 196 | 14 | 7.14% | 3.81 [1.08-13.43] | 0.081 | 0.507 |
| SCARNA20 | 101 | 7 | 6.93% | 196 | 33 | 16.84% | 2.72 [1.33-5.57] | 2.17E-02 | 0.507 |
| SCARNA3 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| SCARNA4 | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| SCCPDH | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| SCFD1 | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| SCML4 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| SCN4A | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| SCNM1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| SCNN1B | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| SCNN1G | 101 | 5 | 4.95% | 196 | 1 | 0.51% | 0.098 [0.016-0.60] | 3.55E-02 | 0.507 |
| SCPEP1 | 101 | 7 | 6.93% | 196 | 22 | 11.22% | 1.70 [0.81-3.57] | 0.242 | 0.610 |
| SCRIB | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| SCRN1 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SCRN2 | 101 | 1 | 0.99% | 196 | 10 | 5.10% | 5.38 [0.95-30.54] | 0.111 | 0.511 |
| SCRT1 | 101 | 18 | 17.82% | 196 | 50 | 25.51% | 1.58 [0.95-2.62] | 0.137 | 0.535 |
| SCYL3 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| SDAD1 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| SDC2 | 101 | 15 | 14.85% | 196 | 53 | 27.04% | 2.12 [1.25-3.61] | 1.95E-02 | 0.507 |
| SDC4 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SDCBP | 101 | 14 | 13.86% | 196 | 33 | 16.84% | 1.26 [0.71-2.22] | 0.506 | 0.805 |
| SDCCAG8 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| SDF2 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| SDHAF2 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| SDHAP1 | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| SDHAP2 | 101 | 5 | 4.95% | 196 | 7 | 3.57% | 0.71 [0.27-1.90] | 0.569 | 0.855 |
| SDHC | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| SDK2 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| SDR16C5 | 101 | 14 | 13.86% | 196 | 30 | 15.31% | 1.12 [0.63-2.00] | 0.740 | 0.996 |
| SEBOX | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| SEC11A | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| SEC11C | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SEC14L1 | 101 | 2 | 1.98% | 196 | 14 | 7.14% | 3.81 [1.08-13.43] | 0.081 | 0.507 |
| SEC14L5 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| SEC16B | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| SEC22B | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| SEC24C | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SEC63 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SECTM1 | 101 | 2 | 1.98% | 196 | 14 | 7.14% | 3.81 [1.08-13.43] | 0.081 | 0.507 |
| SELENBP1 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| SELE | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| SELL | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| SELP | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| SEMA4A | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| SEMA4B | 101 | 2 | 1.98% | 196 | 8 | 4.08% | 2.11 [0.56-7.86] | 0.352 | 0.722 |
| SEMA6C | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| SEMG1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| SEMG2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SENP2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| SENP5 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| SEPHS2 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| sept-12 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| sept-01 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| sept-09 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| MSRB1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SERINC3 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| SERPINB10 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| SERPINB11 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| SERPINB12 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| SERPINB13 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| SERPINB2 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| SERPINB3 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| SERPINB4 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| SERPINB5 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| SERPINB7 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| SERPINB8 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| SERPINC1 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SERPINH1 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| SERTAD4 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| SESN1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SETD1A | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| SETDB1 | 101 | 8 | 7.92% | 196 | 16 | 8.16% | 1.03 [0.49-2.17] | 0.942 | 1.000 |
| SEZ6L2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| SEZ6 | 101 | 3 | 2.97% | 196 | 6 | 3.06% | 1.03 [0.32-3.36] | 0.965 | 1.000 |
| SF3B2 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SF3B4 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| SFRP1 | 101 | 13 | 12.87% | 196 | 30 | 15.31% | 1.22 [0.68-2.20] | 0.573 | 0.860 |
| SRSF1 | 101 | 6 | 5.94% | 196 | 25 | 12.76% | 2.31 [1.06-5.03] | 0.076 | 0.507 |
| SRSF2 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| SRSF6 | 101 | 3 | 2.97% | 196 | 6 | 3.06% | 1.03 [0.32-3.36] | 0.965 | 1.000 |
| SFT2D2 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| SFTA3 | 101 | 0 | 0.00% | 196 | 10 | 5.10% | 4.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SFTPA1 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SGCA | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| POMK | 101 | 13 | 12.87% | 196 | 23 | 11.73% | 0.90 [0.49-1.66] | 0.776 | 0.996 |
| SGK2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| SGK3 | 101 | 15 | 14.85% | 196 | 39 | 19.90% | 1.42 [0.82-2.46] | 0.287 | 0.650 |
| SGSH | 101 | 4 | 3.96% | 196 | 14 | 7.14% | 1.87 [0.72-4.85] | 0.283 | 0.650 |
| SH2B1 | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| SH2D1B | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| SH2D2A | 101 | 7 | 6.93% | 196 | 8 | 4.08% | 0.57 [0.24-1.37] | 0.294 | 0.650 |
| SH2D7 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SH3BP5L | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| SHANK2 | 101 | 15 | 14.85% | 196 | 35 | 17.86% | 1.25 [0.72-2.17] | 0.512 | 0.805 |
| SHARPIN | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| SHC1 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| SHE | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SHISA4 | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| SHISA7 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| SHISA9 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| SIAH2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| SIGLEC14 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| SIGLEC9 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SIGMAR1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SIPA1L2 | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| SIRPB1 | 101 | 11 | 10.89% | 196 | 21 | 10.71% | 0.98 [0.51-1.88] | 0.963 | 1.000 |
| SIRT7 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| SKA2 | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| SKAP1 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| SKAP2 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SKIL | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| SLA2 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| SLAMF1 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| SLAMF6 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| SLAMF7 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| SLAMF8 | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| SLAMF9 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| SLA | 101 | 15 | 14.85% | 196 | 57 | 29.08% | 2.35 [1.39-3.99] | 7.74E-03 | 0.507 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| SLC10A5 | 101 | 18 | 17.82% | 196 | 46 | 23.47% | 1.41 [0.85-2.35] | 0.263 | 0.643 |
| SLC12A5 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| SLC13A2 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| SLC13A3 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| SLC16A3 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| SLC16A5 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| SLC16A6 | 101 | 10 | 9.90% | 196 | 28 | 14.29% | 1.52 [0.80-2.88] | 0.286 | 0.650 |
| SLC17A6 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| SLC17A9 | 101 | 7 | 6.93% | 196 | 14 | 7.14% | 1.03 [0.47-2.28] | 0.946 | 1.000 |
| SLC19A2 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| SLC1A2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SLC20A2 | 101 | 15 | 14.85% | 196 | 31 | 15.82% | 1.08 [0.61-1.89] | 0.828 | 1.000 |
| SLC25A10 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| SLC25A19 | 101 | 5 | 4.95% | 196 | 11 | 5.61% | 1.14 [0.46-2.84] | 0.811 | 1.000 |
| SLC25A21 | 101 | 0 | 0.00% | 196 | 11 | 5.61% | 5.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SLC25A32 | 101 | 16 | 15.84% | 196 | 55 | 28.06% | 2.07 [1.23-3.48] | 2.09E-02 | 0.507 |
| SLC25A44 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| SLC26A11 | 101 | 4 | 3.96% | 196 | 14 | 7.14% | 1.87 [0.72-4.85] | 0.283 | 0.650 |
| SLC26A7 | 101 | 17 | 16.83% | 196 | 47 | 23.98% | 1.56 [0.93-2.61] | 0.158 | 0.535 |
| SLC26A9 | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| SLC27A3 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SLC28A1 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| SLC29A2 | 101 | 5 | 4.95% | 196 | 7 | 3.57% | 0.71 [0.27-1.90] | 0.569 | 0.855 |
| SLC2A10 | 101 | 5 | 4.95% | 196 | 7 | 3.57% | 0.71 [0.27-1.90] | 0.569 | 0.855 |
| SLC2A4RG | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| SLC30A10 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| SLC30A1 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| SLC30A8 | 101 | 17 | 16.83% | 196 | 57 | 29.08% | 2.03 [1.22-3.37] | 2.23E-02 | 0.507 |
| SLC32A1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| SLC35B1 | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| SLC35C2 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| SLC35E3 | 101 | 2 | 1.98% | 196 | 17 | 8.67% | 4.70 [1.35-16.35] | 4.11E-02 | 0.507 |
| SLC35F3 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| SLC37A3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SLC38A10 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| SLC39A11 | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| SLC39A1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| SLC39A4 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| SLC41A1 | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| SLC45A3 | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| SLC45A4 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| SLC46A1 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| SLC46A3 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SLC47A1 | 101 | 4 | 3.96% | 196 | 1 | 0.51% | 0.12 [0.02-0.79] | 0.064 | 0.507 |
| SLC47A2 | 101 | 4 | 3.96% | 196 | 1 | 0.51% | 0.12 [0.02-0.79] | 0.064 | 0.507 |
| SLC5A11 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SLC5A2 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| SLC6A10P | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SLC6A4 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| SLC7A13 | 101 | 18 | 17.82% | 196 | 47 | 23.98% | 1.45 [0.87-2.42] | 0.226 | 0.598 |
| SLC7A5P1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SLC7A5P2 | 101 | 6 | 5.94% | 196 | 2 | 1.02% | 0.16 [0.042-0.64] | 2.82E-02 | 0.507 |
| SLC9C2 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SLC9A3R1 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| SLC9A3R2 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SLC9A8 | 101 | 9 | 8.91% | 196 | 15 | 7.65% | 0.85 [0.41-1.75] | 0.707 | 0.962 |
| SLCO2B1 | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| SLCO3A1 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SLCO4A1 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| SLCO5A1 | 101 | 16 | 15.84% | 196 | 40 | 20.41% | 1.36 [0.80-2.33] | 0.342 | 0.716 |
| SLFN11 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SLFN5 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SLPI | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SLURP1 | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| SMARCD2 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| SMARCE1 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| SMCP | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| SMG1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| SMG5 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| SMG7 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| SMURF2 | 101 | 8 | 7.92% | 196 | 27 | 13.78% | 1.86 [0.93-3.72] | 0.143 | 0.535 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| SMYD2 | 101 | 6 | 5.94% | 196 | 22 | 11.22% | 2.00 [0.91-4.39] | 0.146 | 0.535 |
| SMYD3 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| SNAI1 | 101 | 8 | 7.92% | 196 | 16 | 8.16% | 1.03 [0.49-2.17] | 0.942 | 1.000 |
| SNAI2 | 101 | 13 | 12.87% | 196 | 25 | 12.76% | 0.99 [0.54-1.81] | 0.977 | 1.000 |
| SNAP47 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| SNAPIN | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SNAR-1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| SNF8 | 101 | 2 | 1.98% | 196 | 16 | 8.16% | 4.40 [1.26-15.37] | 0.051 | 0.507 |
| SNHG11 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| SNHG6 | 101 | 15 | 14.85% | 196 | 40 | 20.41% | 1.47 [0.85-2.53] | 0.245 | 0.616 |
| SNHG9 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SNN | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SNORA10 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SNORA14B | 101 | 7 | 6.93% | 196 | 18 | 9.18% | 1.36 [0.63-2.91] | 0.509 | 0.805 |
| SNORA16B | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| SNORA21 | 101 | 4 | 3.96% | 196 | 9 | 4.59% | 1.17 [0.43-3.20] | 0.801 | 1.000 |
| SNORA30 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| SNORA36B | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| SNORA37 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| SNORA38B | 101 | 9 | 8.91% | 196 | 29 | 14.80% | 1.78 [0.91-3.44] | 0.155 | 0.535 |
| SNORA64 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SNORA71A | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| SNORA71B | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| SNORA71C | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| SNORA71D | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| SNORA72 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| SNORA77 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| SNORA78 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SNORD104 | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| SNORD124 | 101 | 5 | 4.95% | 196 | 11 | 5.61% | 1.14 [0.46-2.84] | 0.811 | 1.000 |
| SNORD12B | 101 | 7 | 6.93% | 196 | 7 | 3.57% | 0.50 [0.20-1.23] | 0.203 | 0.570 |
| SNORD12C | 101 | 7 | 6.93% | 196 | 7 | 3.57% | 0.50 [0.20-1.23] | 0.203 | 0.570 |
| SNORD12 | 101 | 7 | 6.93% | 196 | 7 | 3.57% | 0.50 [0.20-1.23] | 0.203 | 0.570 |
| SNORD15A | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| SNORD15B | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| SNORD1A | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| SNORD1B | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| SNORD1C | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| SNORD42A | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| SNORD42B | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| SNORD44 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD47 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD4A | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| SNORD4B | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| SNORD54 | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| SNORD60 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SNORD66 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| SNORD74 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD75 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD76 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD77 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD78 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD79 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD80 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD81 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SNORD87 | 101 | 15 | 14.85% | 196 | 40 | 20.41% | 1.47 [0.85-2.53] | 0.245 | 0.616 |
| SNORD93 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SNRNP25 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| SNRPA1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SNRPE | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| SNTB1 | 101 | 14 | 13.86% | 196 | 53 | 27.04% | 2.30 [1.34-3.96] | 1.14E-02 | 0.507 |
| SNTG1 | 101 | 11 | 10.89% | 196 | 24 | 12.24% | 1.14 [0.60-2.16] | 0.732 | 0.990 |
| SNX10 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SNX11 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| SNX16 | 101 | 18 | 17.82% | 196 | 45 | 22.96% | 1.37 [0.82-2.29] | 0.306 | 0.676 |
| SNX21 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| SNX27 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| SNX31 | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| SNX3 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| SNX6 | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SOAT1 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| SOBP | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| SOCS1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| SOCS3 | 101 | 4 | 3.96% | 196 | 14 | 7.14% | 1.87 [0.72-4.85] | 0.283 | 0.650 |
| SOCS7 | 101 | 5 | 4.95% | 196 | 8 | 4.08% | 0.82 [0.31-2.13] | 0.729 | 0.986 |
| CAPN15 | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| SOX13 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| SOX17 | 101 | 13 | 12.87% | 196 | 29 | 14.80% | 1.18 [0.65-2.12] | 0.652 | 0.928 |
| SOX18 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| SOX2-OT | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| SOX2 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| SOX6 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| SOX8 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| SOX9 | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| SP2 | 101 | 1 | 0.99% | 196 | 10 | 5.10% | 5.38 [0.95-30.54] | 0.111 | 0.511 |
| SP4 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SP6 | 101 | 1 | 0.99% | 196 | 10 | 5.10% | 5.38 [0.95-30.54] | 0.111 | 0.511 |
| SP8 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SPACA3 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| SPAG1 | 101 | 15 | 14.85% | 196 | 54 | 27.55% | 2.18 [1.28-3.70] | 1.56E-02 | 0.507 |
| SPAG4 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| SPAG5 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| SPAG9 | 101 | 4 | 3.96% | 196 | 18 | 9.18% | 2.45 [0.97-6.23] | 0.114 | 0.512 |
| SPATA17 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| SPATA20 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| SPATA2 | 101 | 9 | 8.91% | 196 | 15 | 7.65% | 0.85 [0.41-1.75] | 0.707 | 0.962 |
| SPATA8 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SPATC1 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| SPCS2 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| SPHAR | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| SPHK1 | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| EPPIN | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SPINT3 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SPINT4 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SPNS1 | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| SPN | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SPO11 | 101 | 9 | 8.91% | 196 | 17 | 8.67% | 0.97 [0.48-1.97] | 0.945 | 1.000 |
| SPOP | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| SPRR1A | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| SPRR1B | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SPRR2A | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SPRR2B | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SPRR2C | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| SPRR2D | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SPRR2E | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SPRR2F | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SPRR2G | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| SPRR3 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SPRR4 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| SPSB3 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SPTA1 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| SPTBN2 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| SQL | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| SRCAP | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| SRCIN1 | 101 | 5 | 4.95% | 196 | 8 | 4.08% | 0.82 [0.31-2.13] | 0.729 | 0.986 |
| SRC | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SRGAP1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| SRGAP2 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| SRL | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| SRMS | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| SRP54 | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SRP68 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| SRP9 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| SRRM2 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SRY | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SS18L1 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| SSC5D | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| SSH2 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| SSH3 | 101 | 10 | 9.90% | 196 | 16 | 8.16% | 0.81 [0.40-1.62] | 0.616 | 0.898 |
| SSR2 | 101 | 7 | 6.93% | 196 | 10 | 5.10% | 0.72 [0.31-1.67] | 0.522 | 0.815 |
| SSTR1 | 101 | 0 | 0.00% | 196 | 9 | 4.59% | 4.1e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SSTR2 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| SSTR5 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| ST18 | 101 | 12 | 11.88% | 196 | 27 | 13.78% | 1.18 [0.64-2.18] | 0.647 | 0.928 |
| ST3GAL1 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| ST6GALNAC1 | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| ST6GALNAC2 | 101 | 3 | 2.97% | 196 | 15 | 7.65% | 2.71 [0.94-7.82] | 0.122 | 0.534 |
| ST8SIA2 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| STAC2 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| STARD10 | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| STARD3 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| STARD6 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| STAR | 101 | 11 | 10.89% | 196 | 46 | 23.47% | 2.51 [1.39-4.54] | 1.09E-02 | 0.507 |
| STAU1 | 101 | 6 | 5.94% | 196 | 7 | 3.57% | 0.59 [0.23-1.50] | 0.349 | 0.722 |
| STAU2 | 101 | 15 | 14.85% | 196 | 40 | 20.41% | 1.47 [0.85-2.53] | 0.245 | 0.616 |
| STBD1 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| STC2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| STK31 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| STK3 | 101 | 16 | 15.84% | 196 | 53 | 27.04% | 1.97 [1.17-3.31] | 3.23E-02 | 0.507 |
| STK4 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| STMN2 | 101 | 17 | 16.83% | 196 | 46 | 23.47% | 1.52 [0.90-2.54] | 0.187 | 0.551 |
| STMN3 | 101 | 7 | 6.93% | 196 | 16 | 8.16% | 1.19 [0.55-2.59] | 0.707 | 0.962 |
| STRADA | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| STRN3 | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| STUB1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| STX16 | 101 | 8 | 7.92% | 196 | 16 | 8.16% | 1.03 [0.49-2.17] | 0.942 | 1.000 |
| STX1B | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| STX4 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| STX6 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| STXBP4 | 101 | 8 | 7.92% | 196 | 18 | 9.18% | 1.18 [0.57-2.44] | 0.715 | 0.972 |
| SULF1 | 101 | 16 | 15.84% | 196 | 40 | 20.41% | 1.36 [0.80-2.33] | 0.342 | 0.716 |
| SULF2 | 101 | 5 | 4.95% | 196 | 8 | 4.08% | 0.82 [0.31-2.13] | 0.729 | 0.986 |
| SULT1A1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SULT1A2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SULT1A3 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| SUMO1P1 | 101 | 12 | 11.88% | 196 | 25 | 12.76% | 1.08 [0.59-2.01] | 0.829 | 1.000 |
| SUMO1P3 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| SUMO2 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| SUPT4H1 | 101 | 6 | 5.94% | 196 | 29 | 14.80% | 2.75 [1.28-5.92] | 3.02E-02 | 0.507 |
| SUPT6H | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| SUSD4 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| SV2A | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| SV2B | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SVIP | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| SYBU | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| SYCP2 | 101 | 9 | 8.91% | 196 | 13 | 6.63% | 0.73 [0.35-1.53] | 0.479 | 0.805 |
| SYNGR2 | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| SYNGR3 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| SYNM | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| SYNPO2L | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| SYNRG | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| SYS1-DBNDD1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SYS1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| SYT11 | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| SYT12 | 101 | 8 | 7.92% | 196 | 12 | 6.12% | 0.76 [0.35-1.65] | 0.559 | 0.852 |
| SYT14 | 101 | 6 | 5.94% | 196 | 22 | 11.22% | 2.00 [0.91-4.39] | 0.146 | 0.535 |
| SYT17 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| SYT2 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| SYT7 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| SYTL2 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| TAC4 | 101 | 4 | 3.96% | 196 | 16 | 8.16% | 2.16 [0.84-5.53] | 0.180 | 0.535 |
| TACC1 | 101 | 12 | 11.88% | 196 | 42 | 21.43% | 2.02 [1.13-3.62] | 4.62E-02 | 0.507 |
| TACO1 | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| TADA1 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| TADA2A | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| TAF15 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| TAF1A | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| TAF2 | 101 | 15 | 14.85% | 196 | 56 | 28.57% | 2.29 [1.35-3.89] | 9.81E-03 | 0.507 |
| TAF4 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| TAF5L | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TAGLN2 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| TANC2 | 101 | 8 | 7.92% | 196 | 31 | 15.82% | 2.18 [1.10-4.34] | 0.061 | 0.507 |
| TAOK1 | 101 | 3 | 2.97% | 196 | 6 | 3.06% | 1.03 [0.32-3.36] | 0.965 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| TAKO2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| TARBP1 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| TARP | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| TARS2 | 101 | 9 | 8.91% | 196 | 16 | 8.16% | 0.91 [0.44-1.86] | 0.826 | 1.000 |
| TAS2R39 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| TAS2R40 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| TAS2R43 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| TATDN1 | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| TATDN3 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| TAX1BP1 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TBC1D10B | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| TBC1D10C | 101 | 11 | 10.89% | 196 | 18 | 9.18% | 0.83 [0.43-1.61] | 0.639 | 0.918 |
| TBC1D15 | 101 | 2 | 1.98% | 196 | 11 | 5.61% | 2.94 [0.82-10.59] | 0.166 | 0.535 |
| TBC1D16 | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| TBC1D24 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| TBC1D3B | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| TBC1D3C | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| TBC1D3G | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| TBC1D3H | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| TBC1D3P2 | 101 | 9 | 8.91% | 196 | 34 | 17.35% | 2.15 [1.12-4.12] | 0.055 | 0.507 |
| TBC1D3 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| TBC1D7 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TBCD | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| TBCE | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| TBK1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TBKBP1 | 101 | 2 | 1.98% | 196 | 9 | 4.59% | 2.38 [0.65-8.76] | 0.273 | 0.643 |
| TBL1XR1 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| TBL1Y | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBL3 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| TBX10 | 101 | 10 | 9.90% | 196 | 19 | 9.69% | 0.98 [0.50-1.92] | 0.955 | 1.000 |
| TBX19 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| TBX21 | 101 | 2 | 1.98% | 196 | 9 | 4.59% | 2.38 [0.65-8.76] | 0.273 | 0.643 |
| TBX2 | 101 | 7 | 6.93% | 196 | 32 | 16.33% | 2.62 [1.28-5.38] | 2.75E-02 | 0.507 |
| TBX4 | 101 | 7 | 6.93% | 196 | 32 | 16.33% | 2.62 [1.28-5.38] | 2.75E-02 | 0.507 |
| TBX6 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| TCAM1P | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| TCAP | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| TCEA1 | 101 | 12 | 11.88% | 196 | 30 | 15.31% | 1.34 [0.73-2.45] | 0.423 | 0.787 |
| TCEA2 | 101 | 7 | 6.93% | 196 | 11 | 5.61% | 0.80 [0.35-1.82] | 0.652 | 0.928 |
| TCFL5 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| TCHHL1 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| TCHH | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| TCIRG1 | 101 | 9 | 8.91% | 196 | 22 | 11.22% | 1.29 [0.65-2.56] | 0.538 | 0.835 |
| TCTEX1D2 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| TDRD10 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| TDRD5 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TDRKH | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| TEDDM1 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| TEKT5 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| TELO2 | 101 | 7 | 6.93% | 196 | 5 | 2.55% | 0.35 [0.13-0.94] | 0.081 | 0.507 |
| TERF1 | 101 | 16 | 15.84% | 196 | 42 | 21.43% | 1.45 [0.85-2.47] | 0.252 | 0.623 |
| TEX14 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| TEX15 | 101 | 2 | 1.98% | 196 | 7 | 3.57% | 1.83 [0.48-6.96] | 0.455 | 0.805 |
| TEX19 | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| TEX2 | 101 | 7 | 6.93% | 196 | 28 | 14.29% | 2.24 [1.08-4.63] | 0.068 | 0.507 |
| TFAP2C | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| TFAP4 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| TFB2M | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| TFRC | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| TGFB11I | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| TGFB2 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TGIF2LY | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TGIF2 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| TGM2 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| TGS1 | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| TG | 101 | 15 | 14.85% | 196 | 58 | 29.59% | 2.41 [1.42-4.08] | 6.08E-03 | 0.507 |
| NELFCD | 101 | 9 | 8.91% | 196 | 15 | 7.65% | 0.85 [0.41-1.75] | 0.707 | 0.962 |
| THAP1 | 101 | 13 | 12.87% | 196 | 27 | 13.78% | 1.08 [0.60-1.96] | 0.829 | 1.000 |
| THAP2 | 101 | 1 | 0.99% | 196 | 12 | 6.12% | 6.52 [1.16-36.57] | 0.074 | 0.507 |
| THAP6 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| THBS3 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| THEM4 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| THEM5 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| THOC3 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| ALYREF | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| THOC6 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| THPO | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| THRA | 101 | 5 | 4.95% | 196 | 9 | 4.59% | 0.92 [0.36-2.37] | 0.890 | 1.000 |
| THRSP | 101 | 9 | 8.91% | 196 | 20 | 10.20% | 1.16 [0.58-2.32] | 0.722 | 0.980 |
| THUMPD1 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| TIAF1 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| TIGD5 | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| TIGD7 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| PAM16 | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| TIMM17A | 101 | 7 | 6.93% | 196 | 24 | 12.24% | 1.87 [0.90-3.92] | 0.161 | 0.535 |
| TIMP2 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| TIPRL | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| TK1 | 101 | 3 | 2.97% | 196 | 17 | 8.67% | 3.10 [1.09-8.87] | 0.076 | 0.507 |
| TLCD1 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| TLK2 | 101 | 8 | 7.92% | 196 | 34 | 17.35% | 2.44 [1.23-4.82] | 3.12E-02 | 0.507 |
| TLR5 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TM2D2 | 101 | 12 | 11.88% | 196 | 39 | 19.90% | 1.84 [1.03-3.31] | 0.086 | 0.507 |
| TM4SF19 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| DCSTAMP | 101 | 17 | 16.83% | 196 | 50 | 25.51% | 1.69 [1.01-2.83] | 0.092 | 0.507 |
| TMBIM4 | 101 | 2 | 1.98% | 196 | 8 | 4.08% | 2.11 [0.56-7.86] | 0.352 | 0.722 |
| TMC3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TMC5 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| TMC6 | 101 | 3 | 2.97% | 196 | 16 | 8.16% | 2.90 [1.01-8.34] | 0.097 | 0.507 |
| TMC7 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| TMC8 | 101 | 3 | 2.97% | 196 | 16 | 8.16% | 2.90 [1.01-8.34] | 0.097 | 0.507 |
| TMCC2 | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| TMCO1 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| TMED10P1 | 101 | 16 | 15.84% | 196 | 47 | 23.98% | 1.68 [0.99-2.84] | 0.106 | 0.507 |
| TMEM100 | 101 | 8 | 7.92% | 196 | 20 | 10.20% | 1.32 [0.64-2.71] | 0.525 | 0.818 |
| TMEM104 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| TMEM105 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| TMEM114 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| TMEM126A | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| TMEM126B | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| TMEM134 | 101 | 11 | 10.89% | 196 | 20 | 10.20% | 0.93 [0.48-1.79] | 0.854 | 1.000 |
| TMEM135 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| TMEM138 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TMEM150B | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TMEM151A | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| TMEM159 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| TMEM183A | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| TMEM186 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| TMEM189-UB | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| TMEM189 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| TMEM190 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TMEM199 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| TMEM19 | 101 | 1 | 0.99% | 196 | 12 | 6.12% | 6.52 [1.16-36.57] | 0.074 | 0.507 |
| TMEM202 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TMEM204 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| TMEM206 | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| TMEM207 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| TMEM216 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TMEM219 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| TMEM41A | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| TMEM44 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 0.774 |
| VMP1 | 101 | 9 | 8.91% | 196 | 34 | 17.35% | 2.15 [1.12-4.12] | 0.055 | 0.507 |
| TMEM63A | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| TMEM64 | 101 | 18 | 17.82% | 196 | 47 | 23.98% | 1.45 [0.87-2.42] | 0.226 | 0.598 |
| TMEM65 | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| TMEM67 | 101 | 17 | 16.83% | 196 | 54 | 27.55% | 1.88 [1.13-3.13] | 4.21E-02 | 0.507 |
| TMEM68 | 101 | 14 | 13.86% | 196 | 30 | 15.31% | 1.12 [0.63-2.00] | 0.740 | 0.996 |
| TMEM70 | 101 | 17 | 16.83% | 196 | 41 | 20.92% | 1.31 [0.77-2.21] | 0.401 | 0.774 |
| TMEM71 | 101 | 15 | 14.85% | 196 | 58 | 29.59% | 2.41 [1.42-4.08] | 6.08E-03 | 0.507 |
| TMEM74 | 101 | 15 | 14.85% | 196 | 51 | 26.02% | 2.02 [1.18-3.43] | 3.03E-02 | 0.507 |
| TMEM79 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| TMEM81 | 101 | 7 | 6.93% | 196 | 26 | 13.27% | 2.05 [0.99-4.27] | 0.106 | 0.507 |
| TMEM86A | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| TMEM8A | 101 | 7 | 6.93% | 196 | 4 | 2.04% | 0.28 [0.098-0.80] | 4.63E-02 | 0.507 |
| TMEM92 | 101 | 4 | 3.96% | 196 | 18 | 9.18% | 2.45 [0.97-6.23] | 0.114 | 0.512 |
| TMEM97 | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| TMEM98 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| TMEM99 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| TMEM9 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| TMIGD1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| TMOD4 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| TMSB4Y | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TMTC3 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TNFAIP1 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| TNFAIP8L2 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| TNFRSF11A | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| TNFRSF11B | 101 | 15 | 14.85% | 196 | 57 | 29.08% | 2.35 [1.39-3.99] | 7.74E-03 | 0.507 |
| TNFRSF12A | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| TNFRSF17 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| TNFRSF6B | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| TNFSF18 | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| TNFSF4 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| TNK2 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| TNNC2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| TNNI1 | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| TNNT2 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| TNN | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| TNP2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| TNRC6A | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| TNRC6C | 101 | 3 | 2.97% | 196 | 16 | 8.16% | 2.90 [1.01-8.34] | 0.097 | 0.507 |
| TNR | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| TNS4 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| TOB1 | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| TOM1L1 | 101 | 7 | 6.93% | 196 | 16 | 8.16% | 1.19 [0.55-2.59] | 0.707 | 0.962 |
| TOMM20 | 101 | 7 | 6.93% | 196 | 19 | 9.69% | 1.44 [0.68-3.07] | 0.427 | 0.791 |
| TOMM34 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| TOMM40L | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| TOMM7 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TOP1MT | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| TOP1P1 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| TOP1 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| TOP2A | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| TOR1AIP1 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TOR1AIP2 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TOR3A | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| TOX2 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| TOX | 101 | 15 | 14.85% | 196 | 33 | 16.84% | 1.16 [0.66-2.03] | 0.660 | 0.935 |
| TP53BP2 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| TP53I13 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| TP53INP1 | 101 | 16 | 15.84% | 196 | 53 | 27.04% | 1.97 [1.17-3.31] | 3.23E-02 | 0.507 |
| TP53INP2 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| TP53RK | 101 | 4 | 3.96% | 196 | 7 | 3.57% | 0.90 [0.31-2.57] | 0.867 | 1.000 |
| TP53TG3B | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| TP53TG5 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| TP63 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| TPCN2 | 101 | 16 | 15.84% | 196 | 46 | 23.47% | 1.63 [0.96-2.76] | 0.128 | 0.535 |
| TPD52L2 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| TPD52 | 101 | 17 | 16.83% | 196 | 48 | 24.49% | 1.60 [0.96-2.68] | 0.133 | 0.535 |
| TPH1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TPH2 | 101 | 2 | 1.98% | 196 | 11 | 5.61% | 2.94 [0.82-10.59] | 0.166 | 0.535 |
| TPM3 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| TPRG1 | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| TPR | 101 | 5 | 4.95% | 196 | 16 | 8.16% | 1.71 [0.72-4.07] | 0.311 | 0.680 |
| TPSAB1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| TPSB2 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| TPSD1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| TPSG1 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| TRA2A | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TRAF3IP3 | 101 | 6 | 5.94% | 196 | 22 | 11.22% | 2.00 [0.91-4.39] | 0.146 | 0.535 |
| TRAF4 | 101 | 3 | 2.97% | 196 | 9 | 4.59% | 1.57 [0.52-4.80] | 0.505 | 0.805 |
| TRAF5 | 101 | 7 | 6.93% | 196 | 20 | 10.20% | 1.53 [0.72-3.24] | 0.355 | 0.722 |
| TRAF7 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| TRAM1 | 101 | 16 | 15.84% | 196 | 40 | 20.41% | 1.36 [0.80-2.33] | 0.342 | 0.716 |
| TRAP1 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| TRAPPC9 | 101 | 17 | 16.83% | 196 | 50 | 25.51% | 1.69 [1.01-2.83] | 0.092 | 0.507 |
| TRHDE | 101 | 2 | 1.98% | 196 | 11 | 5.61% | 2.94 [0.82-10.59] | 0.166 | 0.535 |
| TRHR | 101 | 15 | 14.85% | 196 | 52 | 26.53% | 2.07 [1.22-3.52] | 2.44E-02 | 0.507 |
| TRIB1 | 101 | 16 | 15.84% | 196 | 58 | 29.59% | 2.23 [1.33-3.74] | 1.06E-02 | 0.507 |
| TRIL | 101 | 0 | 0.00% | 196 | 8 | 4.08% | 3.6e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TRIM11 | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| TRIM17 | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |
| TRIM25 | 101 | 7 | 6.93% | 196 | 22 | 11.22% | 1.70 [0.81-3.57] | 0.242 | 0.610 |
| TRIM37 | 101 | 8 | 7.92% | 196 | 29 | 14.80% | 2.02 [1.01-4.03] | 0.094 | 0.507 |
| TRIM46 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| TRIM47 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| TRIM55 | 101 | 15 | 14.85% | 196 | 37 | 18.88% | 1.33 [0.77-2.31] | 0.388 | 0.757 |
| TRIM58 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| TRIM65 | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| TRIM67 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TRIM72 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| TRMT12 | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| TRPA1 | 101 | 15 | 14.85% | 196 | 41 | 20.92% | 1.52 [0.88-2.61] | 0.207 | 0.573 |
| TRPC4AP | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| TRPS1 | 101 | 16 | 15.84% | 196 | 58 | 29.59% | 2.23 [1.33-3.74] | 1.06E-02 | 0.507 |
| TRPV5 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| TRPV6 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| PRSS3P2 | 101 | 21 | 20.79% | 196 | 37 | 18.88% | 0.89 [0.54-1.47] | 0.693 | 0.951 |
| TSC2 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| TSEN15 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| TSEN54 | 101 | 5 | 4.95% | 196 | 12 | 6.12% | 1.25 [0.51-3.08] | 0.681 | 0.943 |
| TSM | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TSG101 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| TSHZ2 | 101 | 11 | 10.89% | 196 | 23 | 11.73% | 1.09 [0.57-2.06] | 0.829 | 1.000 |
| TSKU | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| TSNARE1 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| TSNAX-DISC1 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TSNAX | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TSPAN10 | 101 | 2 | 1.98% | 196 | 12 | 6.12% | 3.23 [0.90-11.53] | 0.130 | 0.535 |
| TSPAN31 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| TSPAN8 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| TSPY1 | 101 | 0 | 0.00% | 196 | 1 | 0.51% | 3.2e+07 [0e+00-Inf] | 0.997 | 1.000 |
| TSPY2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSPY3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSPY4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSPYL5 | 101 | 15 | 14.85% | 196 | 53 | 27.04% | 2.12 [1.25-3.61] | 1.95E-02 | 0.507 |
| TSTA3 | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| TSTD1 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| TTC13 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| TTC14 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| TTC23 | 101 | 1 | 0.99% | 196 | 9 | 4.59% | 4.81 [0.84-27.58] | 0.139 | 0.535 |
| TTC24 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| EMC2 | 101 | 15 | 14.85% | 196 | 50 | 25.51% | 1.96 [1.15-3.35] | 3.75E-02 | 0.507 |
| TLL6 | 101 | 2 | 1.98% | 196 | 19 | 9.69% | 5.31 [1.54-18.36] | 2.67E-02 | 0.507 |
| TTPAL | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| TTPA | 101 | 15 | 14.85% | 196 | 33 | 16.84% | 1.16 [0.66-2.03] | 0.660 | 0.935 |
| TTTTY10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY17A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY17B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY18 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY22 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY3B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY4C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTTTY6B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| TTY6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTY7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTY8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTY9B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TYH2 | 101 | 6 | 5.94% | 196 | 15 | 7.65% | 1.31 [0.58-2.98] | 0.586 | 0.869 |
| TUBB1 | 101 | 9 | 8.91% | 196 | 15 | 7.65% | 0.85 [0.41-1.75] | 0.707 | 0.962 |
| TUBD1 | 101 | 8 | 7.92% | 196 | 34 | 17.35% | 2.44 [1.23-4.82] | 3.12E-02 | 0.507 |
| TUFM | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| TUFT1 | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| TXNDC11 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| TXNIP | 101 | 5 | 4.95% | 196 | 10 | 5.10% | 1.03 [0.41-2.60] | 0.955 | 1.000 |
| U2AF2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| UAP1 | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| UBAP2L | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| UBE2C | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| UBE2I | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| UBE2MP1 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| UBE2N | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| UBE2O | 101 | 3 | 2.97% | 196 | 16 | 8.16% | 2.90 [1.01-8.34] | 0.097 | 0.507 |
| UBE2Q1 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| UBE2Q2P1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| UBE2S | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| UBE2T | 101 | 7 | 6.93% | 196 | 25 | 12.76% | 1.96 [0.94-4.09] | 0.131 | 0.535 |
| UBE2V1 | 101 | 6 | 5.94% | 196 | 14 | 7.14% | 1.22 [0.53-2.79] | 0.696 | 0.951 |
| UBE2V2 | 101 | 14 | 13.86% | 196 | 27 | 13.78% | 0.99 [0.55-1.78] | 0.984 | 1.000 |
| UBE2W | 101 | 17 | 16.83% | 196 | 40 | 20.41% | 1.27 [0.75-2.14] | 0.459 | 0.805 |
| UBE2Z | 101 | 2 | 1.98% | 196 | 18 | 9.18% | 5.01 [1.44-17.35] | 3.31E-02 | 0.507 |
| UBFD1 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| UBL3 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| UBN1 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| UBQLN4 | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| UBR5 | 101 | 16 | 15.84% | 196 | 55 | 28.06% | 2.07 [1.23-3.48] | 2.09E-02 | 0.507 |
| UBTFL1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| UBXN2B | 101 | 14 | 13.86% | 196 | 33 | 16.84% | 1.26 [0.71-2.22] | 0.506 | 0.805 |
| UBXN7 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| UBXN8 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| UCHL5 | 101 | 5 | 4.95% | 196 | 17 | 8.67% | 1.82 [0.77-4.32] | 0.252 | 0.623 |
| UCK2 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| UCKL1-AS1 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| UCKL1 | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| UCP2 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| UCP3 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| UFC1 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| UHMK1 | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| ULK2 | 101 | 4 | 3.96% | 196 | 1 | 0.51% | 0.12 [0.02-0.79] | 0.064 | 0.507 |
| UMOD | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| UNC119 | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 0.909 |
| UNC13D | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| UNC45A | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| UNC45B | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| UNC5D | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| UNC93B1 | 101 | 9 | 8.91% | 196 | 21 | 10.71% | 1.23 [0.62-2.44] | 0.626 | 0.907 |
| UNKL | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| UNK | 101 | 4 | 3.96% | 196 | 12 | 6.12% | 1.58 [0.60-4.18] | 0.438 | 0.798 |
| UQCC1 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| UQCRB | 101 | 16 | 15.84% | 196 | 53 | 27.04% | 1.97 [1.17-3.31] | 3.23E-02 | 0.507 |
| UQCRC2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| URB2 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| USF1 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| USH1C | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| USH1G | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| USH2A | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| USO1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| USP13 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| USP17L2 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| USP21 | 101 | 6 | 5.94% | 196 | 16 | 8.16% | 1.41 [0.62-3.18] | 0.490 | 0.805 |
| USP31 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| USP32 | 101 | 7 | 6.93% | 196 | 33 | 16.84% | 2.72 [1.33-5.57] | 2.17E-02 | 0.507 |
| USP35 | 101 | 8 | 7.92% | 196 | 17 | 8.67% | 1.10 [0.53-2.30] | 0.825 | 1.000 |
| USP36 | 101 | 3 | 2.97% | 196 | 13 | 6.63% | 2.32 [0.79-6.79] | 0.197 | 0.570 |
| USP54 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| USP7 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| USP9Y | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USPL1 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| UTP18 | 101 | 4 | 3.96% | 196 | 15 | 7.65% | 2.01 [0.78-5.19] | 0.226 | 0.598 |
| UTP23 | 101 | 16 | 15.84% | 196 | 58 | 29.59% | 2.23 [1.33-3.74] | 1.06E-02 | 0.507 |
| UTS2B | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| UTS2R | 101 | 2 | 1.98% | 196 | 13 | 6.63% | 3.52 [0.99-12.47] | 0.102 | 0.507 |
| UTY | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UVRAG | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| VAMP4 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| VANGL2 | 101 | 5 | 4.95% | 196 | 14 | 7.14% | 1.48 [0.61-3.57] | 0.467 | 0.805 |
| VAPB | 101 | 9 | 8.91% | 196 | 17 | 8.67% | 0.97 [0.48-1.97] | 0.945 | 1.000 |
| VASH2 | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| VASN | 101 | 5 | 4.95% | 196 | 6 | 3.06% | 0.61 [0.22-1.68] | 0.418 | 0.779 |
| VCL | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| VCPIP1 | 101 | 15 | 14.85% | 196 | 38 | 19.39% | 1.38 [0.80-2.38] | 0.335 | 0.716 |
| VCP | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| VCY | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VDAC2 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| VDAC3 | 101 | 14 | 13.86% | 196 | 31 | 15.82% | 1.17 [0.66-2.07] | 0.656 | 0.931 |
| VEZF1 | 101 | 6 | 5.94% | 196 | 25 | 12.76% | 2.31 [1.06-5.03] | 0.076 | 0.507 |
| VHLL | 101 | 6 | 5.94% | 196 | 9 | 4.59% | 0.76 [0.31-1.86] | 0.616 | 0.898 |
| VKORC1 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| VN1R5 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| VPS13B | 101 | 15 | 14.85% | 196 | 55 | 28.06% | 2.24 [1.32-3.80] | 1.24E-02 | 0.507 |
| VPS28 | 101 | 18 | 17.82% | 196 | 49 | 25.00% | 1.54 [0.93-2.55] | 0.163 | 0.535 |
| VPS37C | 101 | 2 | 1.98% | 196 | 3 | 1.53% | 0.77 [0.17-3.50] | 0.776 | 0.996 |
| VPS41 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| VPS45 | 101 | 8 | 7.92% | 196 | 14 | 7.14% | 0.89 [0.42-1.91] | 0.808 | 1.000 |
| VPS4B | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| VPS72 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| VPS8 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| VSIG8 | 101 | 6 | 5.94% | 196 | 10 | 5.10% | 0.85 [0.36-2.04] | 0.762 | 0.996 |
| VSTM2L | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| VTN | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| VWA3A | 101 | 6 | 5.94% | 196 | 3 | 1.53% | 0.25 [0.076-0.80] | 0.051 | 0.507 |
| VWASB2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| VWCE | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| WBP2 | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| WDR24 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| WDR26 | 101 | 7 | 6.93% | 196 | 17 | 8.67% | 1.28 [0.59-2.75] | 0.602 | 0.887 |
| WDR45B | 101 | 2 | 1.98% | 196 | 15 | 7.65% | 4.10 [1.17-14.39] | 0.064 | 0.507 |
| WDR53 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| WDR64 | 101 | 4 | 3.96% | 196 | 20 | 10.20% | 2.76 [1.09-6.95] | 0.071 | 0.507 |
| TBC1D31 | 101 | 14 | 13.86% | 196 | 56 | 28.57% | 2.49 [1.45-4.27] | 5.58E-03 | 0.507 |
| WDR73 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| WDR90 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| WDR93 | 101 | 1 | 0.99% | 196 | 7 | 3.57% | 3.70 [0.63-21.75] | 0.224 | 0.596 |
| WDYHV1 | 101 | 14 | 13.86% | 196 | 58 | 29.59% | 2.61 [1.52-4.48] | 3.40E-03 | 0.507 |
| WFDC10A | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| WFDC10B | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| WFDC11 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| WFDC12 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| WFDC13 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| WFDC2 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| WFDC3 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| WFDC5 | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| WFDC6 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| WFDC8 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| WFDC9 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| WFIKKN1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| WFIKKN2 | 101 | 4 | 3.96% | 196 | 21 | 10.71% | 2.91 [1.16-7.31] | 0.056 | 0.507 |
| WHAMM | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| WIF1 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| WIPF2 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| WIPF3 | 101 | 0 | 0.00% | 196 | 6 | 3.06% | 2.7e+07 [0e+00-Inf] | 0.992 | 1.000 |
| WIPI1 | 101 | 8 | 7.92% | 196 | 27 | 13.78% | 1.86 [0.93-3.72] | 0.143 | 0.535 |
| WNT11 | 101 | 6 | 5.94% | 196 | 17 | 8.67% | 1.50 [0.67-3.38] | 0.407 | 0.774 |
| WNT3A | 101 | 6 | 5.94% | 196 | 21 | 10.71% | 1.90 [0.86-4.19] | 0.181 | 0.535 |
| WNT3 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| WNT9A | 101 | 7 | 6.93% | 196 | 21 | 10.71% | 1.61 [0.76-3.40] | 0.294 | 0.650 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| WNT9B | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| WRN | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| WSB1 | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 0.898 |
| WWP1 | 101 | 18 | 17.82% | 196 | 47 | 23.98% | 1.45 [0.87-2.42] | 0.226 | 0.598 |
| XCL1 | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| XCL2 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| XKRA | 101 | 13 | 12.87% | 196 | 30 | 15.31% | 1.22 [0.68-2.20] | 0.573 | 0.860 |
| XKR9 | 101 | 16 | 15.84% | 196 | 39 | 19.90% | 1.32 [0.77-2.26] | 0.395 | 0.770 |
| XKRY2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XKRY | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XPO6 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| XPOT | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| XPR1 | 101 | 6 | 5.94% | 196 | 18 | 9.18% | 1.60 [0.72-3.57] | 0.335 | 0.716 |
| XRRA1 | 101 | 5 | 4.95% | 196 | 15 | 7.65% | 1.59 [0.66-3.81] | 0.382 | 0.750 |
| XYLT1 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| XYLT2 | 101 | 4 | 3.96% | 196 | 19 | 9.69% | 2.60 [1.03-6.59] | 0.090 | 0.507 |
| YEATS2 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 0.599 |
| YEATS4 | 101 | 2 | 1.98% | 196 | 18 | 9.18% | 5.01 [1.44-17.35] | 3.31E-02 | 0.507 |
| YIF1A | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| YKT6 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| YOD1 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| YPEL2 | 101 | 8 | 7.92% | 196 | 30 | 15.31% | 2.10 [1.06-4.18] | 0.076 | 0.507 |
| YPEL3 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| YTHDF1 | 101 | 7 | 6.93% | 196 | 12 | 6.12% | 0.88 [0.39-1.97] | 0.788 | 0.996 |
| YTHDF3 | 101 | 15 | 14.85% | 196 | 32 | 16.33% | 1.12 [0.64-1.96] | 0.742 | 0.996 |
| YWHAB | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| YWHAZ | 101 | 15 | 14.85% | 196 | 57 | 29.08% | 2.35 [1.39-3.99] | 7.74E-03 | 0.507 |
| YY1AP1 | 101 | 7 | 6.93% | 196 | 9 | 4.59% | 0.65 [0.27-1.52] | 0.401 | 0.774 |
| ZACN | 101 | 4 | 3.96% | 196 | 13 | 6.63% | 1.72 [0.66-4.51] | 0.353 | 0.722 |
| ZBP1 | 101 | 9 | 8.91% | 196 | 16 | 8.16% | 0.91 [0.44-1.86] | 0.826 | 1.000 |
| ZBTB10 | 101 | 17 | 16.83% | 196 | 50 | 25.51% | 1.69 [1.01-2.83] | 0.092 | 0.507 |
| ZBTB37 | 101 | 5 | 4.95% | 196 | 13 | 6.63% | 1.36 [0.56-3.32] | 0.566 | 0.852 |
| ZBTB41 | 101 | 5 | 4.95% | 196 | 21 | 10.71% | 2.30 [0.99-5.36] | 0.104 | 0.507 |
| ZBTB46 | 101 | 7 | 6.93% | 196 | 13 | 6.63% | 0.95 [0.43-2.12] | 0.923 | 1.000 |
| ZBTB7B | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |
| ZC3H11A | 101 | 7 | 6.93% | 196 | 27 | 13.78% | 2.15 [1.03-4.45] | 0.085 | 0.507 |
| ZC3H3 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| ZC3H7A | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| ZCCHC2 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| ZDHHHC17 | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| ZDHHHC19 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| ZDHHHC24 | 101 | 5 | 4.95% | 196 | 11 | 5.61% | 1.14 [0.46-2.84] | 0.811 | 1.000 |
| ZFAND1 | 101 | 18 | 17.82% | 196 | 46 | 23.47% | 1.41 [0.85-2.35] | 0.263 | 0.643 |
| ZFAT-AS1 | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| ZFAT | 101 | 16 | 15.84% | 196 | 54 | 27.55% | 2.02 [1.20-3.40] | 2.60E-02 | 0.507 |
| ZFC3H1 | 101 | 1 | 0.99% | 196 | 13 | 6.63% | 7.10 [1.27-39.64] | 0.061 | 0.507 |
| ZFHX4 | 101 | 15 | 14.85% | 196 | 46 | 23.47% | 1.76 [1.03-3.01] | 0.084 | 0.507 |
| ZFP41 | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| ZFP64 | 101 | 9 | 8.91% | 196 | 15 | 7.65% | 0.85 [0.41-1.75] | 0.707 | 0.962 |
| ZFPM2 | 101 | 16 | 15.84% | 196 | 52 | 26.53% | 1.92 [1.14-3.23] | 3.98E-02 | 0.507 |
| ZFY | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZG16B | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| ZG16 | 101 | 5 | 4.95% | 196 | 3 | 1.53% | 0.30 [0.088-1.01] | 0.103 | 0.507 |
| ZGPAT | 101 | 7 | 6.93% | 196 | 15 | 7.65% | 1.11 [0.51-2.43] | 0.822 | 1.000 |
| ZHX1 | 101 | 14 | 13.86% | 196 | 57 | 29.08% | 2.55 [1.49-4.37] | 4.36E-03 | 0.507 |
| ZHX2 | 101 | 14 | 13.86% | 196 | 56 | 28.57% | 2.49 [1.45-4.27] | 5.58E-03 | 0.507 |
| ZHX3 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 0.996 |
| ZKSCAN2 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ZMAT3 | 101 | 4 | 3.96% | 196 | 3 | 1.53% | 0.38 [0.11-1.35] | 0.207 | 0.573 |
| ZMAT4 | 101 | 13 | 12.87% | 196 | 32 | 16.33% | 1.32 [0.74-2.37] | 0.432 | 0.798 |
| MSS51 | 101 | 0 | 0.00% | 196 | 5 | 2.55% | 2.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| ZMYND8 | 101 | 6 | 5.94% | 196 | 8 | 4.08% | 0.67 [0.27-1.68] | 0.476 | 0.805 |
| ZNF124 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| ZNF160 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF16 | 101 | 16 | 15.84% | 196 | 48 | 24.49% | 1.72 [1.02-2.91] | 0.088 | 0.507 |
| ZNF174 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ZNF200 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ZNF205 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| ZNF213 | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| ZNF217 | 101 | 12 | 11.88% | 196 | 26 | 13.27% | 1.13 [0.61-2.09] | 0.735 | 0.993 |
| ZBTB18 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| ZNF250 | 101 | 16 | 15.84% | 196 | 48 | 24.49% | 1.72 [1.02-2.91] | 0.088 | 0.507 |
| ZNF251 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| ZNF252P | 101 | 16 | 15.84% | 196 | 47 | 23.98% | 1.68 [0.99-2.84] | 0.106 | 0.507 |
| ZNF263 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ZNF267 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| ZNF281 | 101 | 6 | 5.94% | 196 | 24 | 12.24% | 2.21 [1.01-4.82] | 0.095 | 0.507 |
| ZNF311 | 101 | 3 | 2.97% | 196 | 5 | 2.55% | 0.86 [0.25-2.89] | 0.833 | 1.000 |
| ZNF334 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| ZNF335 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ZNF347 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF34 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| ZNF350 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF415 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZSCAN32 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ZNF468 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF48 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ZNF496 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| ZNF500 | 101 | 5 | 4.95% | 196 | 5 | 2.55% | 0.50 [0.17-1.45] | 0.286 | 0.650 |
| ZNF503 | 101 | 2 | 1.98% | 196 | 5 | 2.55% | 1.30 [0.32-5.21] | 0.759 | 0.996 |
| ZNF512B | 101 | 6 | 5.94% | 196 | 11 | 5.61% | 0.94 [0.40-2.23] | 0.908 | 1.000 |
| ZNF517 | 101 | 16 | 15.84% | 196 | 49 | 25.00% | 1.77 [1.05-2.99] | 0.073 | 0.507 |
| ZNF524 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| ZNF532 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF572 | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| ZNF579 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| ZNF580 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| ZNF581 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| ZNF592 | 101 | 1 | 0.99% | 196 | 6 | 3.06% | 3.16 [0.53-18.88] | 0.290 | 0.650 |
| ZNF597 | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ZNF598 | 101 | 6 | 5.94% | 196 | 5 | 2.55% | 0.41 [0.15-1.15] | 0.154 | 0.535 |
| ZNF613 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF614 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF615 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF623 | 101 | 16 | 15.84% | 196 | 51 | 26.02% | 1.87 [1.11-3.15] | 4.89E-02 | 0.507 |
| ZNF628 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| ZNF629 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ZNF639 | 101 | 4 | 3.96% | 196 | 2 | 1.02% | 0.25 [0.059-1.05] | 0.113 | 0.511 |
| ZNF646 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| ZNF648 | 101 | 5 | 4.95% | 196 | 18 | 9.18% | 1.94 [0.82-4.58] | 0.203 | 0.570 |
| ZNF649 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF652 | 101 | 5 | 4.95% | 196 | 20 | 10.20% | 2.18 [0.93-5.10] | 0.130 | 0.535 |
| ZNF665 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 0.805 |
| ZNF668 | 101 | 4 | 3.96% | 196 | 6 | 3.06% | 0.77 [0.26-2.26] | 0.685 | 0.943 |
| ZNF669 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| ZNF670 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| ZNF672 | 101 | 6 | 5.94% | 196 | 19 | 9.69% | 1.70 [0.77-3.78] | 0.274 | 0.643 |
| ZNF678 | 101 | 6 | 5.94% | 196 | 20 | 10.20% | 1.80 [0.81-3.98] | 0.224 | 0.596 |
| ZNF687 | 101 | 6 | 5.94% | 196 | 13 | 6.63% | 1.12 [0.49-2.60] | 0.817 | 1.000 |
| ZNF688 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ZNF689 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ZNF692 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| ZNF695 | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| ZNF696 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| ZNF703 | 101 | 11 | 10.89% | 196 | 54 | 27.55% | 3.11 [1.73-5.60] | 1.48E-03 | 0.507 |
| ZNF704 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| ZNF706 | 101 | 16 | 15.84% | 196 | 57 | 29.08% | 2.18 [1.30-3.66] | 1.33E-02 | 0.507 |
| ZNF707 | 101 | 17 | 16.83% | 196 | 51 | 26.02% | 1.74 [1.04-2.90] | 0.076 | 0.507 |
| ZNF710 | 101 | 1 | 0.99% | 196 | 8 | 4.08% | 4.26 [0.73-24.65] | 0.175 | 0.535 |
| ZNF720 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| ZNF747 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ZNF750 | 101 | 2 | 1.98% | 196 | 14 | 7.14% | 3.81 [1.08-13.43] | 0.081 | 0.507 |
| ZNF75A | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| ZNF764 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ZNF768 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ZNF771 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ZNF774 | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| ZNF784 | 101 | 2 | 1.98% | 196 | 4 | 2.04% | 1.03 [0.24-4.35] | 0.972 | 1.000 |
| ZNF785 | 101 | 4 | 3.96% | 196 | 5 | 2.55% | 0.63 [0.21-1.95] | 0.505 | 0.805 |
| ZNF7 | 101 | 17 | 16.83% | 196 | 49 | 25.00% | 1.65 [0.98-2.76] | 0.111 | 0.511 |
| ZNF830 | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| ZNF831 | 101 | 8 | 7.92% | 196 | 15 | 7.65% | 0.96 [0.46-2.04] | 0.935 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>ZNF843</i> | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 0.716 |
| <i>ZNFX1</i> | 101 | 7 | 6.93% | 196 | 7 | 3.57% | 0.50 [0.20-1.23] | 0.203 | 0.570 |
| <i>ZNHIT3</i> | 101 | 2 | 1.98% | 196 | 6 | 3.06% | 1.56 [0.40-6.08] | 0.589 | 0.869 |
| <i>ZNRF2</i> | 101 | 0 | 0.00% | 196 | 7 | 3.57% | 3.2e+07 [0e+00-Inf] | 0.992 | 1.000 |
| <i>ZP2</i> | 101 | 5 | 4.95% | 196 | 2 | 1.02% | 0.20 [0.049-0.80] | 0.056 | 0.507 |
| <i>ZP4</i> | 101 | 5 | 4.95% | 196 | 19 | 9.69% | 2.06 [0.88-4.83] | 0.163 | 0.535 |
| <i>ZPBP2</i> | 101 | 6 | 5.94% | 196 | 12 | 6.12% | 1.03 [0.44-2.41] | 0.950 | 1.000 |
| <i>ZSCAN10</i> | 101 | 6 | 5.94% | 196 | 4 | 2.04% | 0.33 [0.11-0.97] | 0.092 | 0.507 |
| <i>ZSCAN2</i> | 101 | 1 | 0.99% | 196 | 5 | 2.55% | 2.62 [0.43-16.05] | 0.383 | 0.750 |
| <i>ZSWIM1</i> | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |
| <i>ZSWIM3</i> | 101 | 5 | 4.95% | 196 | 4 | 2.04% | 0.40 [0.13-1.23] | 0.179 | 0.535 |

Supplementary Table 6: Comparison of frequency of homozygous deletions among the 3,842 genes altered in at least 5/297 tested samples (TCGA) between the two CINSARC classes in Luminal B breast cancers.

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>RBFOX1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>AANAT</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>AATF</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>AATK</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABAT</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCA10</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCA17P</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCA3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCA5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCA6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCA8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCA9</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCB10</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCB5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCC12</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCC1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCC3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCC5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCC6P1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCC6P2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCC6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCC8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABCF3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABHD15</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABHD2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABI3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABL2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABRA</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACACA</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACAN</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACAP2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACBD3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACBD6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACER3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACE</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACIN1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACOT1</i> | 101 | 3 | 2.97% | 196 | 4 | 2.04% | 0.68 [0.19-2.43] | 0.619 | 1.000 |
| <i>ACOT8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACOX1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACP6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACSF2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACSM1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACSM2A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACSM2B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACSM3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACSM5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACSS2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACSS3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACTA1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACTG1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACTL6A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACTN2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACTN3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACTR5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ACY3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAM15</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAM18</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAM2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAM30</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAM32</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAM3A</i> | 101 | 11 | 10.89% | 196 | 11 | 5.61% | 0.49 [0.23-1.01] | 0.106 | 1.000 |
| <i>ADAM5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAM9</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAMTS4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAMTSL4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAP2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADAR</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ADA</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| ADCK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADCK5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADCY10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADCY8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADCY9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADCYAP1R1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADHFE1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADIG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADIPOR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADNP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADORA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADRB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADRM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ADSS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AEN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AFMID | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AFM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AFP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AGAP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AGAP5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AGBL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AGT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AHCTF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AHSP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AIDA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AIM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AIP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AKAP10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AKAP13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AKAP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AKAP6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AKT3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALDH3A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALDH3A2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALDH3B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALDH3B2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALDH9A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALDOA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALDOC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALG3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALG8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ALPK3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCL18 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AMDHD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AMELY | 101 | 64 | 63.37% | 196 | 115 | 58.67% | 0.82 [0.54-1.24] | 0.434 | 1.000 |
| AMZ2P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AMZ2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANAPC11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANGEL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANGPT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANGPTL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANK3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKFN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKRD13B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKRD13D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKRD17 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKRD34A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKRD35 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKRD36BP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKRD40 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKRD45 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKRD46 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANKS4B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANO5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANP32E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| ASTN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATAD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATAD5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATF6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATF7IP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATG16L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATG5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP11B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP13A3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP13A4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP13A5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP1A2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP1A4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP1B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP2A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP2B4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP6V0C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP6V0D2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP6V1C1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP6V1G3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP6V1H | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP8B2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATP9A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATXN2L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ATXN7L3B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AURKA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AVIL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AVL9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AVPR1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AVPR1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AXIN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AXIN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AZIN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| B3GALNT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| B3GALT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| B3GNT5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| B3GNT6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| B3GNTL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| B4GALNT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| B4GALT3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| B4GALT5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| B9D1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BAALC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BAG4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BAHCC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BAIAP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BAIAP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRRC2C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BATF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BAZ1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BBS10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BBS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BBS9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCAN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCAR4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCAS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCAS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCAS4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCKDK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCL7C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NBEAP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCL9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BCORP1 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| BDH1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BEND3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BEST3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00293 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BFAR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BGLAP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| BHLHE22 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BHLHE23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BIRC5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BIRC7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BLCAP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BLMH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BLM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BLZF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BMP7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BMPER | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BMS1P4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BNIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BOD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BOLA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BOLA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BOP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BPI | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BPNT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BPTF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BPY2 | 101 | 65 | 64.36% | 196 | 116 | 59.18% | 0.80 [0.53-1.22] | 0.387 | 1.000 |
| BRAF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BREA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BRF2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BRIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BRMS1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BRMS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MPC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BRSK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLX4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BTBD17 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BTC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BTG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BTG2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BTNL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BVES | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C10orf105 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZNF503-AS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C10orf55 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C11orf24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIAA1549L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ANAPC15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C11orf58 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAMTOR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R32 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AAMDC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C11orf80 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C11orf86 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C12orf29 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C12orf50 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C12orf66 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C12orf74 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DTD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ARHGAP5-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPTSSA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IGBP1P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C15orf32 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HEXA-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TICRR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNM1P46 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GDPGP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSR3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAGR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C16orf54 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C16orf58 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FOPNL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| METTL22 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C16orf71 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C16orf72 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MEIOB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RMI2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| BRICD5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C16orf82 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KNOP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C16orf89 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C16orf90 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C16orf91 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C16orf92 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OGFOD3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TEN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYRM9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HID1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MIEN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TEFM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| sept-04 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf50 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00469 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00482 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EFCAB13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf58 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MILR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM222B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf64 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf67 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SMG8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf77 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf78 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf80 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf82 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OXLD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRAC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| METTL23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf98 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C17orf99 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00305 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DYNAP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C18orf54 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1QTNF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1QTNF8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf100 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RUSC1-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf105 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf112 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC181 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf115 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf116 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPR1N | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AXDND1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MROH9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf131 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERTAD4-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SHCBP1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GCSAML | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PFN1P2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| METTL18 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00303 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSACC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf189 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf198 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf220 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf226 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf229 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RIIAD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRMT1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SWT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| COA6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf35 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf43 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TEX35 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf53 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C1orf54 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|--------------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>SDE2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C1orf56</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>NTPCR</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>BROX</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C1orf61</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>RRNAD1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C1orf68</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>IBA57</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C1orf74</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>CHTOP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>LRRC71</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>CCSAP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>LINC00467</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SUCO</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FAM209A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FAM209B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FAM210B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>OSER1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SOGA1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>TLDC2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GID8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>OCSTAMP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>MROH8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ABHD16B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>RBBP8NL</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>CNBD2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SPATA25</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C20orf173</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FAM217B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C20orf197</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZFAS1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>MRGBP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>AAR2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C20orf85</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C2CD3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C2CD4D</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ERGIC3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>XXYL1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>CEP19</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>MB21D2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C3orf70</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C4BPA</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C4BPB</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GFOD1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C6orf203</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>CCDC170</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PPP1R17</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>MALSU1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C7orf31</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>MTURN</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FAM221A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C7orf71</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>TMEM249</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C8orf31</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C8orf33</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C8orf34</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C8orf37</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>NDUFAF6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>RBM12B-AS1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SMIM19</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>TTI2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C8orf44</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>MCMDC2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>RHPN1-AS1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>THEM6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>LINC00588</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>MROH6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>C8orf76</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZNF252P-AS1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>TRIQK</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SBSPON</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| AARD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C8orf86 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| C9orf131 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM205A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPP25L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CA10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CA13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CA14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CA4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CA8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CABLES2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CABP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CABP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACNA1E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACNA1G | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACNA1H | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACNA1S | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACNB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACNG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACNG3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACNG4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACNG5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CACYBP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CADM3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CALB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CALCA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CALCB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CALCOCO2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAMK1G | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAMK2B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAMK2G | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAMK2N2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAMSAP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAND1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CANT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAPN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAPN5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAPN8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAPN9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAPS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CARD14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CARHSP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CARNS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CASC3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CASKIN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CASKIN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CASQ1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CASS4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CATSPER1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CBLN4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CBX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CBX2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CBX3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CBX4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CBX8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCBE1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC106 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MCU | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC126 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC137 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC144B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC154 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC158 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC39 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC40 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CEP95 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CEP112 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CCDC47 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| CDH26 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDH4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDIPT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDK12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDK18 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDK2AP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDK3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDK4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDK5R1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDK5RAP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDKL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDR2L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CDY1B | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| CDY1 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| CDY2B | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| CEBPB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CEBPD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CELF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CELF6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CEMP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CENPF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CENPL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CEP170 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CEP250 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CEP290 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CEP350 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CFHR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CFHR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CFHR3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CFHR4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CFHR5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CFH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CFL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CGN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHAD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHCHD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHCHD7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| COA4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHD1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHD6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHD7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHI3L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHIT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHKA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHML | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHMP4C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHMP6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHORDC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHRAC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHRDL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHRD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHRM3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHRNA4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHRNA6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHRN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHRN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CHTF18 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CIB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CIB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CIITA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CISD3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CKS1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CLCF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CLCN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CLCN7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CLDN11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CLDN16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| CRABP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRCT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CREB3L4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CREB5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CREBBP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CREBZF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CREG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRHR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRISPLD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRLF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRNN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRTC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRTC3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRYBA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRYM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YBX3P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSE1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSH1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSHL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSMD1 | 101 | 3 | 2.97% | 196 | 3 | 1.53% | 0.51 [0.13-1.98] | 0.412 | 1.000 |
| CSMD3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSNK1D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSPP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSR3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CST6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CSTF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTAGE4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTAGE6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTCFL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTDSP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTHRC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTNBL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTSA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTSC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTSE | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTSF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTSK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTSS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CTTN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CUEDC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CWC25 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CXADRP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CXCL10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CXCL11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CXCL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CXCL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CXCL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CXCL5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CXCL6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CXCL9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYB561 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYB5R1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYB561A3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYCSP52 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYCS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYGB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYHR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYP11B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYP11B2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYP24A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYP27B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| CYP7A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYP7B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CYTH1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DAP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DARS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DAZ1 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| DAZ2 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| DAZ3 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| DAZ4 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| DBNDD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCAF13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCAF4L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCAF6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCAF7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCAF8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ECI1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCST1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCST2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCTN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCTN5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCTPP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCUN1D1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCUN1D3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DCXR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DDB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DDHD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DDR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DDX27 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DDX3Y | 101 | 64 | 63.37% | 196 | 115 | 58.67% | 0.82 [0.54-1.24] | 0.434 | 1.000 |
| DDX42 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DDX52 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DDX59 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DDX5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DECR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DECR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DEDD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DEFB108B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DEGS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DENND1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DENND3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DENND4B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DEPTOR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DERL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DET1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DEXI | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DGAT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DGAT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DGKE | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DHCR7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DHRS11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DHRS13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DHX35 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DHX40 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DHX9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DIDO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DISC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DISC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DISP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DKFZP586114 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NCR3LG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DKK4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DLG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DLGAP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DLX3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DLX4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAH11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAH14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAH17 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAH3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAI2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| DNAJA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAJB13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAJB5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAJB6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAJC19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAJCSB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAJCS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNAJC9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNASE1L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNASE1 | 101 | 0 | 0.00% | 196 | 1 | 0.51% | 3.2e+07 [0e+00-Inf] | 0.997 | 1.000 |
| DNM3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DNTTIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DOC2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DOK5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPH3P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPM3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPRXP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPY19L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPY19L2P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPY19L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPY19L4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DPYS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DSCC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DSG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DSG4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DSN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DSTYK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DTL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUPD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUS1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUSP10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUSP12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUSP13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUSP14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUSP23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUSP26 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUSP27 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUSP5P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DUSP6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DVL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DYNLL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DYNLRB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DYRK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DYRK3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R27 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| E2F5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| E2F7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| E2F8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| E4F1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EAPP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EARS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EBAG9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ECD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ECE2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ECM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EDARADD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EDEM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EDEM3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EDN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EEA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EED | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EEF1A2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EEF1D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EEF2K | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EFCAB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EFCAB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EFCAB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EFCAB5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| EFNA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EFNA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EFNA4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EFR3A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EGLN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EGLN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EHHADH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF1AD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF1AY | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| EIF2B5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| AGO2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF3CL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF3C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF3E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF3H | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF4A3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF4EBP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF4G1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EIF6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ELF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ELK4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ELMO2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EME1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EME2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EMILIN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EMP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ENAH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ENGASE | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ENHO | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ENPP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ENPP7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ENSA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ENY2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPB41L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPGN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPHB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPHB6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPHX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPPK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPRS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPX | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ERAL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ERBB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ERCC4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EREG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ERL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ERLIN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ERN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ERN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ESRP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ESRRG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ETNK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ETV3L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ETV3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EVPL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EVX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EXO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EXOC7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EXOC8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EXOSC4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EXT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EYA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EYA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| F11R | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| F13B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| F5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FABP12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FABP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| FABP5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FABP9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FADD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FADS6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAHD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBALD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBALD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM104A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM106A | 101 | 1 | 0.99% | 196 | 1 | 0.51% | 0.51 [0.05-5.30] | 0.638 | 1.000 |
| ABHD17C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM110B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM117A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM126A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM129A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM131A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM135B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM149B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM163A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZC2HC1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM168A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM169B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM173A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM174B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM177A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM177B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM181B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM189B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TVP23A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM197Y2 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| FAM20A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM20B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| COX20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM41AY1 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| FAM43A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM47E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM49B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM57B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BRINP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| BRINP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM66D | 101 | 1 | 0.99% | 196 | 1 | 0.51% | 0.51 [0.05-5.30] | 0.638 | 1.000 |
| FAM71A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM71E2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM72A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPATA31A6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM78B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RMDN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM83A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM83C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM83D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM83H | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM86C1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM89A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FAM91A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FANCF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FANCI | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FASLG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FASN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBRS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXL16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXL19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXL20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXL6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXO28 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXO32 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXO3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXO43 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXO45 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXO47 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FCAMR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FCER1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>FTSJ3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FURIN</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FUS</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FUT10</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FUT11</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FUT3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FXR1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FYTTD1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FZD4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>FZD6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GOS2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>G2E3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>G3BP2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GAA</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GAB2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GABARAPL3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GABPB2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GAL3ST3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GALK1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GALNT2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GALR2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GALT</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GAL</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GARS</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GAS2L2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GAS2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GAS5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GATA5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GATAD2B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GBAP1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GBA</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GCGR</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GCK</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GCNT7</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GDAP1L1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GDAP1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GDE1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GDF5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GDF6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GDPD1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GDPD3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GDPD4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GDPD5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GEM</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GFER</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GGA2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GGA3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GGCT</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GGH</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GGNBP2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GGPS1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GGT7</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GH1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GH2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GHRHR</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GHRH</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GINS4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GIP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GIT1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SLX1B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GJA5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GJA8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GJC2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GJD3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GLI4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GLIPR1L1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GLIPR1L2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GLIPR1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GLIS2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>GLRX2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>COLGALT2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| GLUL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GLYR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GMEB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GML | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNA13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNAS-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNAS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNB4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNG13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNG4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNGT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNPAT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNPTG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNRHR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOLGA2P3Y | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| GOLGA6L5P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOLGA6L6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOLGA7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOLGA8CP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOLPH3L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOLT1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GON4L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GORAB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOSR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOSR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GOT1L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GP5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPA33 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPAA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPATCH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPATCH4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPIHBP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GNPMB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR137B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR139 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR142 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR152 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR161 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR171 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLC52A2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR179 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR25 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR37L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR52 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR87 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR89A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPR89B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPRC5B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPRC5C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GPT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GRAPL | 101 | 0 | 0.00% | 196 | 1 | 0.51% | 3.2e+07 [0e+00-Inf] | 0.997 | 1.000 |
| GRB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GRB7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GREM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GRHL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GRIN2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GRIN2C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GRINA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GRIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GRM5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GRP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GSDMA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GSDMB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GSDMC | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| GSDMD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GSG1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| GSPT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GSR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GSS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GSTM1 | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| GSTM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GSTP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GSTT1 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 1.000 |
| GTF2E2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GTF2H2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GTF3C1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTG2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GTSF1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GUCY2EP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| GUK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| H3F3A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| H3F3B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HACE1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAGHL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAGH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAPLN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAPLN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAR1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAR1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAS2-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HAX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HBA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HBA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HBM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HBQ1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HBZ | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HCFC1R1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HCN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HDDC3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HDGF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HEATR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HEATR4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HEATR5A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HEATR6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MROH1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HECTD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HELB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HELZ | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HERC2P4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HES1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HEXA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HEY1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HGSNAT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HGS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HHAT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HHIPL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HHLA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIBADH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HILS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIRIP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST2H2AA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST2H2AB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST2H2AC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST2H2BE | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST2H2BF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST2H3C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST2H3D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST2H4A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST3H2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST3H2BB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HIST3H3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HLA-DRB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HLA-DRB5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HLA-DRB6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HLF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| HLX | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HMCN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HMGA2 | 101 | 0 | 0.00% | 196 | 1 | 0.51% | 3.2e+07 [0e+00-Inf] | 0.997 | 1.000 |
| HMGB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HMGB3P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HMOX2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HMSD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HNF1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HNF4A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HNF4G | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HNRNPA2B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HNRNPU | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOMER2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOOK3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HORMAD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA11-AS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXA9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HOXB9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HPS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HPYR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HRH3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBFOX3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HRNR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HS3ST2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HS3ST4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HS3ST6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HSD11B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HSD17B7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HSD3B7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HSF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HSF5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HSFY2 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| HSPA6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HSPA7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HTR3C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HTR3D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HTR3E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HTRA4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IARS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ICAM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IDH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IDO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IDO2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IER5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IFI16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IFNG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IFT140 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IFT20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IFT52 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IGF1R | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IGF2BP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| IGF2BP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| JAZF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| JMJD4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KDM8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| JMJD6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| JMJD8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| JPH1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| JPH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| JRK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| JTB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KATNAL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KBTBD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNE3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNH1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNH6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNJ10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNJ11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNJ16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNJ2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNJ9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNK15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNK9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNMB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNMB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNMB4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNQ2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNQ3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNU1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCNV1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCTD13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCTD14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCTD21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCTD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCTD3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KCTD5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KDM2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KDM5B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KDM5D | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| KDSR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KEL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KERA | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| KHDRBS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIAA0040 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIAA0087 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIAA0100 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPIDR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIAA0391 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTI1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIAA0556 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CLUHP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZSWIM8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAP10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIAA1614 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIAA1755 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIF14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIF19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIF21B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIF22 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIF26B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIF2B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIF7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| KIFAP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIFC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIR2DL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIR2DL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIR2DL4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIR3DL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KIR3DL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KISS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KITLG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLF10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHDC8A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHDC9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHL12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHL20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHL24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHL25 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHL35 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHL38 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHL6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KLHL7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KMO | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KPNA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KPNB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KPRP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KREMEN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT222 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT25 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT26 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT27 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT28 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRT34 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRTAP5-10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRTAP5-11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRTAP5-7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRTAP5-8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRTAP5-9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KRTCAP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KSR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| L3MBTL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LACTB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAMA5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAMB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAMC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAMC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAMP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAPTM4B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LASP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CERS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LAX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LBP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LBR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE1C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE1D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE1E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE1F | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE2B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE2C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE2D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE3A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE3B | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| LCE3C | 101 | 3 | 2.97% | 196 | 8 | 4.08% | 1.39 [0.45-4.31] | 0.632 | 1.000 |
| LCE3D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE3E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE4A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE5A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCE6A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LCMT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LDHAL6A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LDHA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LDHC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LEFTY1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LEFTY2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LELP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LEMD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LEMD3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LENEP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LETM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LGALS3BP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LGALS8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LGALS9C | 101 | 1 | 0.99% | 196 | 1 | 0.51% | 0.51 [0.05-5.30] | 0.638 | 1.000 |
| LGALS9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LGR5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LGR6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LHX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LHX4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LHX9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LIG3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LIMD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LIME1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LIN28B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LIN7A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LIN9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINGO4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LIPH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LIPT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LITAF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LIX1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LLGL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LLPH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LMAN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LMF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LMLN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LMNA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LMOD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LMX1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC10012678 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC10013098 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC10013149 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC10013436 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC10019098 | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| LOC148696 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC154761 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC220729 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC388242 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC391322 | 101 | 4 | 3.96% | 196 | 4 | 2.04% | 0.51 [0.16-1.65] | 0.342 | 1.000 |
| LOC401463 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC441204 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC606724 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC646214 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC646762 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC652276 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC653653 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC728024 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOC728989 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LOR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LPGAT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LPIN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LPO | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LPP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRCH3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRFN4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| LRP12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRP5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC10B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC28 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC32 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NRROS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC37A2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC37A3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC37A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC45 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC46 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC52 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC59 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R42 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC69 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRRN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LRTOMT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LSG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LSM14B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LSM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LSM5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LUC7L3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LUC7L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LUM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LY6D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LY6E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LY6H | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LY6K | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LY96 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LY9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYNX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYPD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYPLA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYPLA11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYRM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYSMD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYSMD4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYST | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYZL6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LYZ | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAEL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAFA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAFB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAFG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAGEF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAK16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MALT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAN2A2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MANBAL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAP1LC3A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAP1LC3C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAP2K4 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 1.000 |
| MAP2K6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAP3K13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAP3K3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAP6D1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAP6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAPK15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAPK3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAPK7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAPK8IP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAPKAPK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| MARCH10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MARCH9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MARK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MATN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MATN4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MAZ | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MBIP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MBTD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MC3R | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MCCC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MCF2L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MCL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MCM4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MCTP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MDM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MDM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MDM4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MED13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MED1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MED24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MED30 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MEF2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MEF2D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MEFV | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MESP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MESP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| METRNL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| METRN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| METTL11B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| METTL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| METTL2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| METTL9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MEX3A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MFAP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MFG8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MFN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MFSD11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MFSD3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MGAT5B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MGC16275 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MGC2889 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MGRN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MGST3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MIA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MIF4GD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MIPOL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MIXL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MKRN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MKS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MLLT11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MLLT6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MLST8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MMD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MMP16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MMP24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MMP25 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MMP28 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MMP9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MNDA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MOCS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MOGAT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MON2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MARC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MARC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MOS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MPG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MPO | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MPP6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MPV17L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MPZL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MPZ | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| MR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRGPRD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRGPRF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRGPRX1 | 101 | 1 | 0.99% | 196 | 1 | 0.51% | 0.51 [0.05-5.30] | 0.638 | 1.000 |
| MRM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL27 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL28 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL38 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL45 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL46 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL47 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL48 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL55 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPL9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPS11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPS14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPS16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPS21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPS23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPS28 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPS34 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRPS7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MRS2P2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSI2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSLN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSRB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSTO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSTO2P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSX2P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTBP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTDH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTFR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTHFD2L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTMR11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTMR4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTSS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTVR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MTX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MUC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MUC20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MUC4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MVP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MXRA7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYADML2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYBL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYBL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYBPH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYCBPAP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYEOV | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYF5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYF6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYH11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYH7B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYL4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYL9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYLPF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYO15B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYO16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYO18A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| MYO19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYO1D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYO7A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYOC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYOD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYOG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYOZ1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KAT8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KAT7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KAT6A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| KAT6B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MYT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAAA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAALAD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NACA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NADSYN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAGPA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAIP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAP1L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NARF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NARS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAT14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAA60 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAT9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAV1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NAV3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NBN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NBPF10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NBPF14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NBPF15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NBPF7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NBPF9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NCALD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NCBP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NCF2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NCOA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NCOA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NCOA5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NCOA6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00029 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00051 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00052 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| FBXL19-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| LINC00685 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CRYM-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTY14 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| FAM224B | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| LINC00235 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NCSTN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDE1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDRG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDRG3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDST2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDUFAB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDUFB10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDUFB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDUFB5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDUFB9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDUFC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDUFS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDUFS8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NDUFV1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NECAB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NEK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NEK7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NEK8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NENF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NES | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NEU3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NEURL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NEUROD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| NEUROD6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NFASC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NFATC2IP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NFATC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NFE2L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NFE2L3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NFKBIA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TONSL | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| NFS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NGFR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NGRN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NHLH1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NHLRC4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NID1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NIPAL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NIT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NKAIN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NKAIN4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NKX2-1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NKX2-5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NKX2-8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NKX6-3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLE1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLGN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLGN4Y | 101 | 64 | 63.37% | 196 | 115 | 58.67% | 0.82 [0.54-1.24] | 0.434 | 1.000 |
| NLK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLR3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLRP11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLRP13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLRP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLRP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLRP8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NLRP9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NMB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NME1-NME2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NME1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NME2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NME3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NME4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NME7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NMNAT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NMRAL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NNAT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOL11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOMO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOMO2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOMO3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOS1AP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOTUM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOVA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NOXO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPAS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPAS4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPBWR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPBWR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPEPL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPEPPS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPHS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPIP3 | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| NPIPA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPLOC4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPRL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NPSR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| OR10Z1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR11L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR13G1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR14A16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR14C36 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR14I1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR1C1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR1F1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR1F2P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2A12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2A14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2A25 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2A2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2A5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2A7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2A9P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2AK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2AT4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2B11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2C1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2C3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2F1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2F2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2G2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2G3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2G6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2L13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2L1P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2L3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2L8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2M1P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2M2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2M3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2M4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2M5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2M7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T10 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 1.000 |
| OR2T11 | 101 | 3 | 2.97% | 196 | 2 | 1.02% | 0.34 [0.074-1.53] | 0.237 | 1.000 |
| OR2T12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T27 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T29 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T33 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T34 | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| OR2T35 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2T8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2W3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR2W5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4C6 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 1.000 |
| OR4D1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4D2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4F5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4F6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4K1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4K2 | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| OR4K5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4M1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4M2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4N2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4N3P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4N4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4P4 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 1.000 |
| OR4Q3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR4S2 | 101 | 1 | 0.99% | 196 | 4 | 2.04% | 2.08 [0.33-13.25] | 0.514 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| OR52N5 | 101 | 3 | 2.97% | 196 | 7 | 3.57% | 1.21 [0.38-3.83] | 0.786 | 1.000 |
| OR6B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6F1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6K2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6K3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6K6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6N1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6N2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6V1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6W1P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR6Y1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OR9A2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ORAI3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ORMDL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OSBPL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OSBPL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OSBPL7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OSBPL8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OSGIN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OSR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OSTM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OSTN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLC51A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OTOA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OTOP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OTOP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OTUD6B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OTUD7B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| OXR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| P2RY12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| P2RY13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| P2RY14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| P2RY2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| P2RY6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| P4HA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| P4HA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| P4HB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| POTEM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAAF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PABPC1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PABPC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PACS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PALB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAPPA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAQR4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAQR6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAWR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PARD6B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PARL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PARM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PARN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PARP10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PARP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PARP6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PAX9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PBX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PBXIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCDH11Y | 101 | 58 | 57.43% | 196 | 102 | 52.04% | 0.80 [0.54-1.21] | 0.378 | 1.000 |
| PCF11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCGF2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCIF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCMTD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCMTD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCP4L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCSK6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCTP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| PCYT1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PCYT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDE1C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDE2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDE4DIP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDE6G | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDE7A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDE8A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDIA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDIA3P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDILT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDPK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDXDC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDZD9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDZK1P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PDZK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PEA15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PEAR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PECAM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PELI3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PENK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PEX11A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PEX11B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PEX19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PEX2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PEX5L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PF4V1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PF4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PFDN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PFDN4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PFKFB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGA4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGA5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGAP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGBD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGBD5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CPQ | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGLYRP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGLYRP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGM2L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGPEP1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PGS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHACTR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHACTR3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHF12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHF20L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHF20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHKB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHKG2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHLDA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHLDA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHOSPHO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PHOX2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PI15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PI3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PI4KB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PIAS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PIGC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PIGM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PIGQ | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PIGR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PIGS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PIGT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|------------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>PIGU</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PIGW</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PIGX</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PIGZ</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PIK3C2B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PIK3CA</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PIP4K2B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PIP5K1A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PIPOX</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PIP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PITPNC1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PITPNM1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PKD1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PKHD1L1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PKIA</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PKIG</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PKLR</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PKMYT1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PKP1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLA2G10</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLA2G4A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLAG1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLAT</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLAU</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLCG1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLCXD1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLD5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLEC</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLEKHA2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLEKHA6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLEKHA7</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLEKHA8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLEKHB1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLEKHF2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLEKHG7</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLEKHO1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLIN1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLK1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLTP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLXDC1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PLXNA2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PM20D1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PMAIP1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PMEPA1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PMF1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PMM2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PMP2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PMVK</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PNMT</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PNPO</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POC1B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POGK</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POGZ</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLB</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLD3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLD4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLDIP2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLG2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLG</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLI</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLR2H</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLR2K</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLR3C</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLR3E</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLR3GL</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POLR3K</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POM121L8P</i> | 101 | 0 | 0.00% | 196 | 1 | 0.51% | 3.2e+07 [0e+00-Inf] | 0.997 | 1.000 |
| <i>POMP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POP1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POPDC3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>POTEA</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| POTEB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| POTEG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| POU2F1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| POU5F1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPBPP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPBP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPDPF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPEF2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPFIA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPFIA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPFIA4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPIAL4D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPIAL4E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPM1D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPM1E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPM1H | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPME1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPOX | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1CA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R12A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R12B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R15B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R16A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R16B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R3D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP1R9B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP2CB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP2R3B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP2R3C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP2R5A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP3CB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP4C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PPP4R1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| DES12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRAC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRCC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRCD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRCP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRDM14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRDM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRDX6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRELP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PREP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PREX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PREX2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRG4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| HELZ2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRKAB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRKAR1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRKCA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRKCB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRKCI | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRKD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRKDC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRKY | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| PRM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRM3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PROCA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PROCR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PROX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRPF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRPF6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRPSAP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRR11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRR14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRR15L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRR15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| PRR25 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRRT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRRX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS22 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS27 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS30P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS33 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS36 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS38 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS41 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS53 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRY2 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| PSAP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSCA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSEN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSKH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMA6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMA7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMB11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMB4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMB5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMC5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMD11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMD12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMD3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PSMD4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTDSS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTGIS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTGS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTK6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTP4A3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPN14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPN5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPN7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPRB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPRCAP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPRC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPRR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPRT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTPRVP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTRH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTTG3P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PTX4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PUF60 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PURG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PVT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PXDNL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PYCARD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PYCR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PYCR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PYDC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PYDC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PYGO2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PYHIN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PYY2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| QPRT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| QRICH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| QRSL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| QSER1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| QSOX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| R3HDML | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB11FIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB11FIP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| RAB13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB22A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB25 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB26 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB27B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB30 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB34 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB37 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB38 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB3GAP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB3IP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB40B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB40C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB4A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAB6A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RABEP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RABGAP1L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RABIF | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAC3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAD21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAD51C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAD51D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAD54B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAD9A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAE1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLC50A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RALA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RALGAPA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RALGAPB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RALGPS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RALYL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAP1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAPGEF5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAPGEFL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RARA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RASAL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RASL10B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RASSF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RASSF5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RASSF6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RAX | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RB1CC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBBP5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBBP6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM12B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM34 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM38 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM39 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM4B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM8A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RBM1A1 | 101 | 52 | 51.49% | 196 | 98 | 50.00% | 0.94 [0.63-1.41] | 0.808 | 1.000 |
| RBM1A3P | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| RBM1B | 101 | 52 | 51.49% | 196 | 98 | 50.00% | 0.94 [0.63-1.41] | 0.808 | 1.000 |
| RBM1E | 101 | 52 | 51.49% | 196 | 98 | 50.00% | 0.94 [0.63-1.41] | 0.808 | 1.000 |
| RBM1F | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| RBM1J | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| RBM2EP | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| RBM2FP | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| RBM3AP | 101 | 64 | 63.37% | 196 | 115 | 58.67% | 0.82 [0.54-1.24] | 0.434 | 1.000 |
| RBPJL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RC3H1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RCE1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RCHY1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| ROMO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RORC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RP1L1 | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| RP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RP9P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RP9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL23A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL23P8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL28 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL30 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL31P11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL35A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL38 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL3L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPL8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPLPOP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPRD1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPRD2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPRML | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS10P7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS15A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS17 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS27 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS2P32 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS4Y1 | 101 | 62 | 61.39% | 196 | 108 | 55.10% | 0.77 [0.51-1.16] | 0.300 | 1.000 |
| RPS4Y2 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| RPS6KB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS6KB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPS6KC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPSAP52 | 101 | 0 | 0.00% | 196 | 1 | 0.51% | 3.2e+07 [0e+00-Inf] | 0.997 | 1.000 |
| RPTN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPTOR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RPUSD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RRM2B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RRN3P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RRN3P2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RRN3P3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RRN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RRP15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RRS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RSAD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RSF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RSL1D1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RSP02 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RTEL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RTN4IP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SNX29 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SNX29P2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RUNX1T1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RUSC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RXFP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RXRG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| RYR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| S100A4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>S100A5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>S100A6</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>S100A7A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>S100A7L2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>S100A7</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>S100A8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>S100A9</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SALL4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SAMD10</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SAMD12</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SAMD14</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SAMD8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SAMHD1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SAP30BP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>PPP6R3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SARM1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SBF1P1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SBK1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SBK2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCAMP3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCAND1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCAND2P</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCARB2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCARNA15</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCARNA16</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCARNA20</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCARNA3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCARNA4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCCPDH</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCFD1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCML4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCN4A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCNM1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCNN1B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCNN1G</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCPEP1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCRIB</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCRN1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCRN2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCRT1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SCYL3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDAD1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDC2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDC4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDCBP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDCCAG8</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDF2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDHAF2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDHAP1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDHAP2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDHC</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDK2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SDR16C5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEBOX</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEC11A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEC11C</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEC14L1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEC14L5</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEC16B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEC22B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEC24C</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEC63</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SECTM1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SELENBP1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SELE</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SELL</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SELP</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEMA4A</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEMA4B</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEMA6C</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>SEMG1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| SEMG2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SENP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SENP5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SEPHS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| sept-12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| sept-01 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| sept-09 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSRB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERINC3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINB8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERPINH1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SERTAD4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SESN1 | 101 | 0 | 0.00% | 196 | 1 | 0.51% | 3.2e+07 [0e+00-Inf] | 0.997 | 1.000 |
| SETD1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SETDB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SEZ6L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SEZ6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SF3B2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SF3B4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SFRP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRSF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRSF2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRSF6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SFT2D2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SFTA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SFTPA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SGCA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| POMK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SGK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SGK3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SGSH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SH2B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SH2D1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SH2D2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SH2D7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SH3BP5L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SHANK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SHARPIN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SHC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SHE | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SHISA4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SHISA7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SHISA9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SIAH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SIGLEC14 | 101 | 4 | 3.96% | 196 | 8 | 4.08% | 1.03 [0.37-2.88] | 0.960 | 1.000 |
| SIGLEC9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SIGMAR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SIPA1L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SIRPB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SIRT7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SKA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SKAP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SKAP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SKIL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLAMF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLAMF6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLAMF7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLAMF8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLAMF9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SLA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| SOBP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOCS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOCS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOCS7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| CAPN15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOX13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOX17 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOX18 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOX2-OT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOX2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOX6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOX8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SOX9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SP6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SP8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPACA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPAG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPAG4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPAG5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPAG9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPATA17 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPATA20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPATA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPATA8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPATC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPCS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPHAR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPHK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EPPIN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPINT3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPINT4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPNS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPO11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPOP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR1B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR2B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR2C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR2D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR2E | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR2F | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR2G | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPRR4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPSB3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPTA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SPTBN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SQLE | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRCAP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRCIN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRGAP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRGAP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRMS | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRP54 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRP68 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRP9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRRM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SRY | 101 | 62 | 61.39% | 196 | 108 | 55.10% | 0.77 [0.51-1.16] | 0.300 | 1.000 |
| SS18L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SSC5D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SSH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SSH3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SSR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SSTR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| SSTR2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| TAKO2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TARBP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TARP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TARS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TAS2R39 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TAS2R40 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TAS2R43 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TATDN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TATDN3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TAX1BP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D10B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D10C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D3B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D3C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D3G | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D3H | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D3P2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBCD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBCE | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBKBP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBL1XR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBL1Y | 101 | 64 | 63.37% | 196 | 115 | 58.67% | 0.82 [0.54-1.24] | 0.434 | 1.000 |
| TBL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBX10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBX19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBX21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBX2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBX4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBX6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TCAM1P | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TCAP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TCEA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TCEA2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TCFL5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TCHHL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TCHH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TCIRG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TCTEX1D2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TDRD10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TDRD5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TDRKH | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TEDDM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TEKT5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TELO2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TERF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TEX14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TEX15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TEX19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TEX2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TFAP2C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TFAP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TFB2M | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TFRC | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TGFB111 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TGFB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TGIF2LY | 101 | 58 | 57.43% | 196 | 102 | 52.04% | 0.80 [0.54-1.21] | 0.378 | 1.000 |
| TGIF2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TGM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TGS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| NELFCD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| THAP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| THAP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| THAP6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| THBS3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| TMEM8A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TMEM92 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TMEM97 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TMEM98 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TMEM99 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TMEM9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TMIGD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TMOD4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TMSB4Y | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TMTC3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNFAIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNFAIP8L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNFRSF11A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNFRSF11B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNFRSF12A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNFRSF17 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNFRSF6B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNFSF18 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNFSF4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNNC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNNI1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNNT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNRC6A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNRC6C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TNS4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOM1L1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOMM20 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOMM34 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOMM40L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOMM7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOP1MT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOP1P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOP2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOR1AIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOR1AIP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOR3A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOX2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TOX | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TP53BP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TP53I13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TP53INP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TP53INP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TP53RK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TP53TG3B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TP53TG5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TP63 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPCN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPD52L2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPD52 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPH1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPM3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPRG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPSAB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPSB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPSD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TPSG1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRA2A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRAF3IP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRAF4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRAF5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRAF7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRAM1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRAP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| TRAPPC9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRHDE | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRHR | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM17 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM25 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM37 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM46 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM47 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM55 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM58 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM65 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM67 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRIM72 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRMT12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRPA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRPC4AP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRPS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRPV5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TRPV6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| PRSS3P2 | 101 | 9 | 8.91% | 196 | 6 | 3.06% | 0.32 [0.13-0.79] | 3.70E-02 | 1.000 |
| TSC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSEN15 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSEN54 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSFM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSG101 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSHZ2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSKU | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSNARE1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSNAX-DISC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSNAX | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSPAN10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSPAN31 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSPAN8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSPY1 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TSPY2 | 101 | 63 | 62.38% | 196 | 111 | 56.63% | 0.79 [0.52-1.19] | 0.342 | 1.000 |
| TSPY3 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TSPY4 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TSPYL5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSTA3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TSTD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTC13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTC14 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTC23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTC24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| EMC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTL6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTPAL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTPA | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TTY10 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY11 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY12 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY13 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| TTY15 | 101 | 64 | 63.37% | 196 | 115 | 58.67% | 0.82 [0.54-1.24] | 0.434 | 1.000 |
| TTY16 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY17A | 101 | 64 | 63.37% | 196 | 112 | 57.14% | 0.77 [0.51-1.17] | 0.302 | 1.000 |
| TTY17B | 101 | 64 | 63.37% | 196 | 112 | 57.14% | 0.77 [0.51-1.17] | 0.302 | 1.000 |
| TTY18 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY19 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY1B | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY20 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY21 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY22 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY23 | 101 | 63 | 62.38% | 196 | 114 | 58.16% | 0.84 [0.55-1.27] | 0.484 | 1.000 |
| TTY2 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY3B | 101 | 66 | 65.35% | 196 | 117 | 59.69% | 0.79 [0.52-1.19] | 0.343 | 1.000 |
| TTY4C | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| TTY5 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| TTY6B | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|-----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| TTY6 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| TTY7 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY8 | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| TTY9B | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| TTYH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TUBB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TUBD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TUFM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TUFT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TXNDC11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TXNIP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| U2AF2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UAP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBAP2L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2I | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2MP1 | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| UBE2N | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2O | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2Q1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2Q2P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2S | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2T | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2V1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2V2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2W | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBE2Z | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBFD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBQLN4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBR5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBTFL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBXN2B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBXN7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UBXN8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UCHL5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UCK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UCKL1-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UCKL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UCP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UCP3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UFC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UHMK1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ULK2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UMOD | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UNC119 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UNC13D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UNC45A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UNC45B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UNC5D | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UNC93B1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UNKL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UNK | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UQCC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UQCRB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UQCRC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| URB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USH1C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USH1G | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USH2A | 101 | 0 | 0.00% | 196 | 1 | 0.51% | 3.2e+07 [0e+00-Inf] | 0.997 | 1.000 |
| USO1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USP13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USP17L2 | 101 | 1 | 0.99% | 196 | 1 | 0.51% | 0.51 [0.05-5.30] | 0.638 | 1.000 |
| USP21 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USP31 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USP32 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USP35 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USP36 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USP54 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|---------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| USP7 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| USP9Y | 101 | 64 | 63.37% | 196 | 115 | 58.67% | 0.82 [0.54-1.24] | 0.434 | 1.000 |
| USP11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UTP18 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UTP23 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UTS2B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UTS2R | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| UTY | 101 | 64 | 63.37% | 196 | 115 | 58.67% | 0.82 [0.54-1.24] | 0.434 | 1.000 |
| UVRAG | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VAMP4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VANGL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VAPB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VASH2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VASN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VCL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VCP1P1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VCP | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VCY | 101 | 64 | 63.37% | 196 | 116 | 59.18% | 0.84 [0.55-1.27] | 0.485 | 1.000 |
| VDAC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VDAC3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VEZF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VHLL | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VKORC1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VN1R5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VPS13B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VPS28 | 101 | 1 | 0.99% | 196 | 0 | 0.00% | 1.6e-08 [0e+00-Inf] | 0.996 | 1.000 |
| VPS37C | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VPS41 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VPS45 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VPS4B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VPS72 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VPS8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VSIG8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VSTM2L | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VTN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VWA3A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VWASB2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| VWCE | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WBP2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WDR24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WDR26 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WDR45B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WDR53 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WDR64 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| TBC1D31 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WDR73 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WDR90 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WDR93 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WDYHV1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC10A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC10B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC12 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC13 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC5 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFDC9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFIKKN1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WFIKKN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WHAMM | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WIF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WIPF2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WIPF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WIP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WNT11 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WNT3A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WNT3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WNT9A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| WNT9B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WRN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WSB1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| WWP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XCL1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XCL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XKR4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XKR9 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XKRY2 | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| XKRY | 101 | 65 | 64.36% | 196 | 117 | 59.69% | 0.82 [0.54-1.25] | 0.435 | 1.000 |
| XPO6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XPOT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XPR1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XRRA1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XYLT1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| XYLT2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YEATS2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YEATS4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YIF1A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YKT6 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YOD1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YPEL2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YPEL3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YTHDF1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YTHDF3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YWHAB | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YWHAZ | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| YY1AP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZACN | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZBP1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZBTB10 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZBTB37 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZBTB41 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZBTB46 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZBTB7B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZC3H11A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZC3H3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZC3H7A | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZCCHC2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZDHHHC17 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZDHHHC19 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZDHHHC24 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZFAND1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZFAT-AS1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZFAT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZFC3H1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZFHX4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZFP41 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZFP64 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZFPM2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZFY | 101 | 60 | 59.41% | 196 | 106 | 54.08% | 0.80 [0.54-1.21] | 0.382 | 1.000 |
| ZG16B | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZG16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZGPAT | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZHX1 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZHX2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZHX3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZKSCAN2 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZMAT3 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZMAT4 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| MSS51 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZMYND8 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZNF124 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZNF160 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZNF16 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZNF174 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZNF200 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZNF205 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZNF213 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZNF217 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| ZBTB18 | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

| Symbol | CINSARC Low | | | CINSARC High | | | CINSARC High vs. Low | | |
|----------------|-------------|-----------|---------------|--------------|-----------|---------------|----------------------|----------|---------|
| | N tested | N altered | Fq alteration | N tested | N altered | Fq alteration | OR [95%CI] | p-value* | q-value |
| <i>ZNF843</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZNFX1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZNHIT3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZNRF2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZP2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZP4</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZPBP2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZSCAN10</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZSCAN2</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZSWIM1</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |
| <i>ZSWIM3</i> | 101 | 0 | 0.00% | 196 | 0 | 0.00% | 1.00 [0e+00-Inf] | 1.000 | 1.000 |

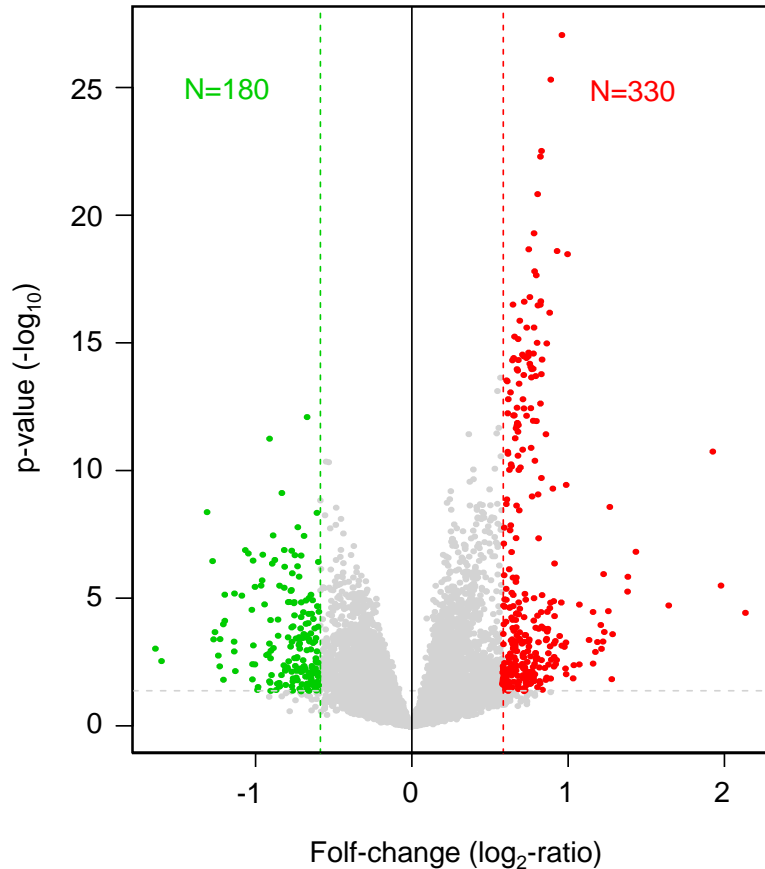
a **Supervised analysis**
CINSARC high- vs low-risk

TCGA, Learning

297 Luminal B samples

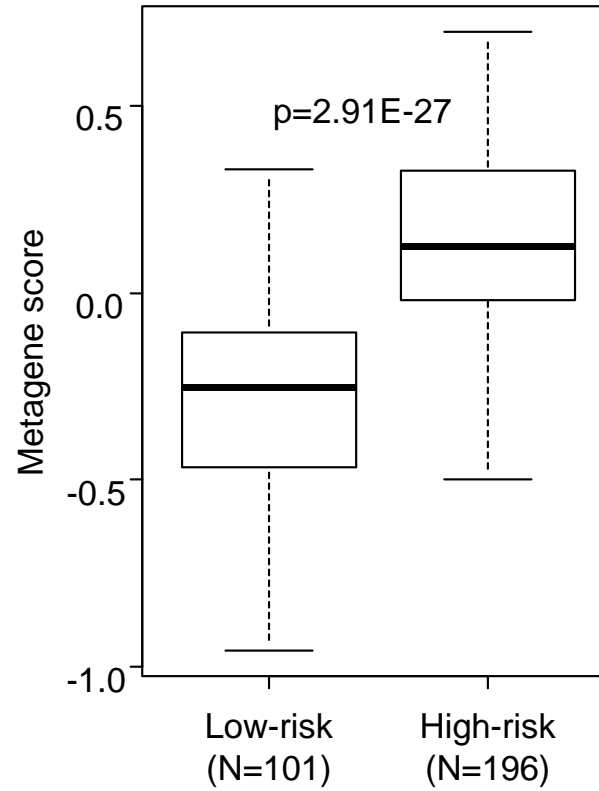
Moderated t-test

($p < 5\%$, $q < 10\%$ & $|FC| > 1.5x$) : **510 genes**

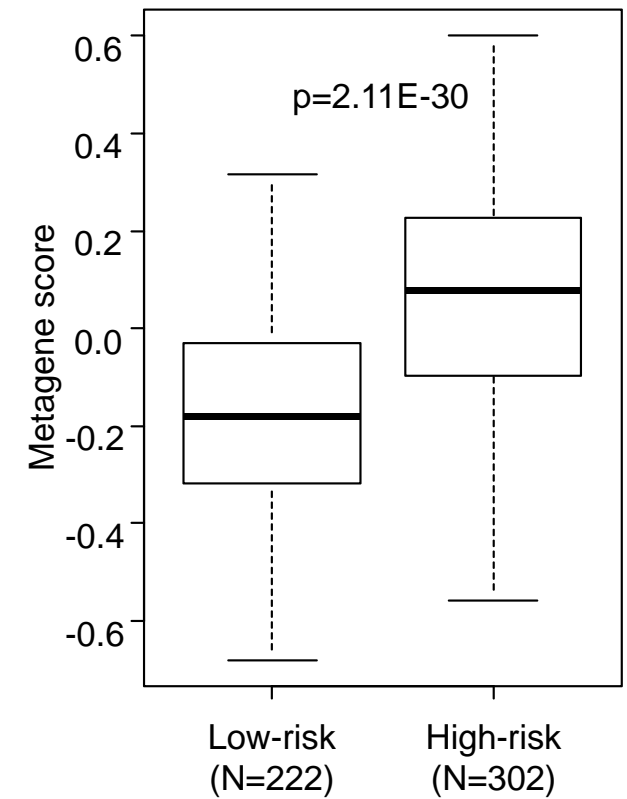


b

TCGA: learning



METABRIC: validation



Supplementary Figure 1: Identification and validation of 510 genes differentially expressed between the two CINSARC classes in Luminal B breast cancers.

a/ Identification of the signature in the TCGA data set (N=297). Volcano-plot showing the 510 genes differentially expressed between the two CINSARC classes. b/ Box plot of the 510-gene metagene in the learning set (TCGA) and the validation set (METABRIC). The p-value is for the Student t-test.

Supplementary Table 7: List of 510 genes differentially expressed between the two CINSARC classes in Luminal B breast cancers.

| Symbol | description | Cytoband | Entrez Gene ID | Low-risk (mean_log2) | High-risk (mean_log2) | High vs.Low (log2-ratio) | t | p-value | q-value | Associated to |
|----------|--------------------------------|----------|----------------|----------------------|-----------------------|--------------------------|-------|----------|----------|-------------------------|
| CENPA | centromere protein A | 2p23.3 | 1058 | 6.31 | 7.27 | 0.97 | 12.13 | 8.31E-28 | 8.89E-24 | up CINSARC High vs. Low |
| BUB1 | BUB1 mitotic checkpoint st | 2q13 | 699 | 8.41 | 9.31 | 0.90 | 11.64 | 4.63E-26 | 2.48E-22 | up CINSARC High vs. Low |
| NCAPH | non-SMC condensin I com | 2q11.2 | 23397 | 7.86 | 8.70 | 0.84 | 10.83 | 2.88E-23 | 1.03E-19 | up CINSARC High vs. Low |
| HJURP | Holliday junction recognitio | 2q37.1 | 55355 | 7.66 | 8.49 | 0.83 | 10.76 | 4.80E-23 | 1.28E-19 | up CINSARC High vs. Low |
| CCNA2 | cyclin A2 | 4q27 | 890 | 8.46 | 9.27 | 0.81 | 10.33 | 1.42E-21 | 3.03E-18 | up CINSARC High vs. Low |
| CCNB2 | cyclin B2 | 15q22.2 | 9133 | 8.35 | 9.14 | 0.79 | 9.86 | 4.83E-20 | 8.61E-17 | up CINSARC High vs. Low |
| CEP55 | centrosomal protein 55 | 10q23.33 | 55165 | 8.28 | 9.04 | 0.76 | 9.67 | 2.05E-19 | 3.13E-16 | up CINSARC High vs. Low |
| BIRC5 | baculoviral IAP repeat conl | 17q25.3 | 332 | 8.12 | 9.06 | 0.94 | 9.65 | 2.40E-19 | 3.21E-16 | up CINSARC High vs. Low |
| KIF14 | kinesin family member 14 | 1q32.1 | 9928 | 7.21 | 8.22 | 1.00 | 9.61 | 3.17E-19 | 3.76E-16 | up CINSARC High vs. Low |
| FOXM1 | forkhead box M1 | 12p13.33 | 2305 | 9.45 | 10.24 | 0.79 | 9.40 | 1.49E-18 | 1.59E-15 | up CINSARC High vs. Low |
| DEPDC1B | DEP domain containing 1B | 5q12.1 | 55789 | 6.56 | 7.36 | 0.80 | 9.35 | 2.13E-18 | 2.07E-15 | up CINSARC High vs. Low |
| KPNA2 | karyopherin subunit alpha : | 17q24.2 | 3838 | 11.20 | 11.96 | 0.76 | 9.08 | 1.53E-17 | 1.36E-14 | up CINSARC High vs. Low |
| TTK | TTK protein kinase | 6q14.1 | 7272 | 7.50 | 8.34 | 0.83 | 9.03 | 2.23E-17 | 1.77E-14 | up CINSARC High vs. Low |
| NCAPG | non-SMC condensin I com | 4p15.31 | 64151 | 8.52 | 9.25 | 0.73 | 9.02 | 2.31E-17 | 1.77E-14 | up CINSARC High vs. Low |
| KIF23 | kinesin family member 23 | 15q23 | 9493 | 8.77 | 9.42 | 0.65 | 8.99 | 3.00E-17 | 2.03E-14 | up CINSARC High vs. Low |
| CKAP2L | cytoskeleton associated pr | 2q14.1 | 150468 | 7.10 | 7.93 | 0.83 | 8.98 | 3.04E-17 | 2.03E-14 | up CINSARC High vs. Low |
| CENPE | centromere protein E | 4q24 | 1062 | 8.29 | 9.10 | 0.81 | 8.98 | 3.22E-17 | 2.03E-14 | up CINSARC High vs. Low |
| TROAP | trophinin associated protei | 12q13.12 | 10024 | 7.52 | 8.41 | 0.89 | 8.88 | 6.23E-17 | 3.70E-14 | up CINSARC High vs. Low |
| BUB1B | BUB1 mitotic checkpoint st | 15q15.1 | 701 | 8.39 | 9.09 | 0.70 | 8.78 | 1.28E-16 | 7.23E-14 | up CINSARC High vs. Low |
| AURKA | aurora kinase A | 20q13.2 | 6790 | 8.54 | 9.33 | 0.79 | 8.69 | 2.38E-16 | 1.21E-13 | up CINSARC High vs. Low |
| KIF2C | kinesin family member 2C | 1p34.1 | 11004 | 8.46 | 9.21 | 0.74 | 8.69 | 2.38E-16 | 1.21E-13 | up CINSARC High vs. Low |
| PRC1 | protein regulator of cytokin | 15q26.1 | 9055 | 9.95 | 10.61 | 0.66 | 8.58 | 5.38E-16 | 2.62E-13 | up CINSARC High vs. Low |
| PARPBP | PARP1 binding protein | 12q23.2 | 55010 | 6.93 | 7.62 | 0.69 | 8.55 | 6.71E-16 | 3.12E-13 | up CINSARC High vs. Low |
| SGO1 | shugoshin 1 | 3p24.3 | 151648 | 6.11 | 6.92 | 0.81 | 8.50 | 9.42E-16 | 4.20E-13 | up CINSARC High vs. Low |
| TICRR | TOPBP1 interacting checki | 15q26.1 | 90381 | 6.74 | 7.61 | 0.87 | 8.49 | 9.94E-16 | 4.26E-13 | up CINSARC High vs. Low |
| NUF2 | NUF2 component of NDC80 | 1q23.3 | 83540 | 7.89 | 8.64 | 0.75 | 8.37 | 2.28E-15 | 9.38E-13 | up CINSARC High vs. Low |
| DLGAP5 | DLG associated protein 5 | 14q22.3 | 9787 | 7.89 | 8.68 | 0.79 | 8.36 | 2.49E-15 | 9.85E-13 | up CINSARC High vs. Low |
| ARHGAP1A | Rho GTPase activating prc | 15q13.3 | 9824 | 8.49 | 9.20 | 0.71 | 8.34 | 2.74E-15 | 1.05E-12 | up CINSARC High vs. Low |
| SPAG5 | sperm associated antigen 5 | 17q11.2 | 10615 | 9.31 | 10.03 | 0.72 | 8.32 | 3.14E-15 | 1.12E-12 | up CINSARC High vs. Low |
| CENPF | centromere protein F | 1q41 | 1063 | 10.73 | 11.49 | 0.75 | 8.32 | 3.15E-15 | 1.12E-12 | up CINSARC High vs. Low |
| BLM | BLM RecQ like helicase | 15q26.1 | 641 | 7.11 | 7.85 | 0.74 | 8.30 | 3.69E-15 | 1.24E-12 | up CINSARC High vs. Low |
| KIF20A | kinesin family member 20A | 5q31.2 | 10112 | 8.82 | 9.48 | 0.66 | 8.30 | 3.71E-15 | 1.24E-12 | up CINSARC High vs. Low |
| MCM10 | minichromosome maintena | 10p13 | 55388 | 7.27 | 8.11 | 0.84 | 8.28 | 4.26E-15 | 1.38E-12 | up CINSARC High vs. Low |
| MAD2L1 | mitotic arrest deficient 2 lik | 4q27 | 4085 | 8.44 | 9.13 | 0.69 | 8.27 | 4.46E-15 | 1.39E-12 | up CINSARC High vs. Low |
| KIF4A | kinesin family member 4A | Xq13.1 | 24137 | 8.81 | 9.46 | 0.65 | 8.27 | 4.54E-15 | 1.39E-12 | up CINSARC High vs. Low |
| TRIP13 | thyroid hormone receptor in | 5p15.33 | 9319 | 8.09 | 8.85 | 0.76 | 8.22 | 6.22E-15 | 1.85E-12 | up CINSARC High vs. Low |
| CDC43 | cell division cycle associati | 12p13.31 | 83461 | 7.37 | 8.14 | 0.77 | 8.18 | 8.17E-15 | 2.36E-12 | up CINSARC High vs. Low |
| MTRFR2 | mitochondrial fission regul | 6q23.3 | 113115 | 5.61 | 6.40 | 0.78 | 8.16 | 9.79E-15 | 2.72E-12 | up CINSARC High vs. Low |
| SKA1 | spindle and kinetochore as | 18q21.1 | 220134 | 6.85 | 7.62 | 0.77 | 8.15 | 1.01E-14 | 2.72E-12 | up CINSARC High vs. Low |
| GTSE1 | G2 and S-phase expressee | 22q13.31 | 51512 | 7.37 | 8.05 | 0.68 | 8.15 | 1.02E-14 | 2.72E-12 | up CINSARC High vs. Low |
| NDC80 | NDC80 kinetochore compl | 18p11.32 | 10403 | 7.75 | 8.43 | 0.68 | 8.13 | 1.14E-14 | 2.98E-12 | up CINSARC High vs. Low |
| UBE2C | ubiquitin conjugating enzyr | 20q13.12 | 11065 | 8.89 | 9.72 | 0.84 | 8.08 | 1.59E-14 | 4.05E-12 | up CINSARC High vs. Low |
| SKA3 | spindle and kinetochore as | 13q12.11 | 221150 | 7.13 | 7.85 | 0.72 | 8.07 | 1.72E-14 | 4.27E-12 | up CINSARC High vs. Low |
| ASPM | abnormal spindle microtubi | 1q31.3 | 259266 | 8.81 | 9.61 | 0.80 | 8.06 | 1.90E-14 | 4.62E-12 | up CINSARC High vs. Low |
| RRM2 | ribonucleotide reductase re | 2p25.1 | 6241 | 9.58 | 10.35 | 0.77 | 8.04 | 2.14E-14 | 5.08E-12 | up CINSARC High vs. Low |
| TPX2 | TPX2 microtubule nucleati | 20q11.21 | 22974 | 10.26 | 10.87 | 0.61 | 8.00 | 2.79E-14 | 6.36E-12 | up CINSARC High vs. Low |
| CDC48 | cell division cycle associati | 1p34.3 | 55143 | 8.30 | 8.92 | 0.62 | 7.99 | 3.02E-14 | 6.73E-12 | up CINSARC High vs. Low |
| CDK1 | cyclin dependent kinase 1 | 10q21.2 | 983 | 9.53 | 10.22 | 0.69 | 7.96 | 3.76E-14 | 8.03E-12 | up CINSARC High vs. Low |
| ECT2 | epithelial cell transforming | 3q26.31 | 1894 | 9.89 | 10.53 | 0.64 | 7.84 | 8.24E-14 | 1.69E-11 | up CINSARC High vs. Low |
| KIF11 | kinesin family member 11 | 10q23.33 | 3832 | 9.40 | 10.02 | 0.62 | 7.74 | 1.52E-13 | 3.02E-11 | up CINSARC High vs. Low |
| POLQ | DNA polymerase theta | 3q13.33 | 10721 | 6.91 | 7.63 | 0.72 | 7.74 | 1.52E-13 | 3.02E-11 | up CINSARC High vs. Low |
| FAM72B | family with sequence simila | 1p11.2 | 653820 | 6.47 | 7.30 | 0.83 | 7.68 | 2.25E-13 | 4.37E-11 | up CINSARC High vs. Low |
| NEK2 | NIMA related kinase 2 | 1q32.3 | 4751 | 8.78 | 9.46 | 0.68 | 7.63 | 3.28E-13 | 6.26E-11 | up CINSARC High vs. Low |
| KIF18B | kinesin family member 18B | 17q21.31 | 146909 | 7.37 | 8.14 | 0.77 | 7.62 | 3.41E-13 | 6.41E-11 | up CINSARC High vs. Low |
| DIAPH3 | diaphanous related formin | 13q21.2 | 81624 | 7.04 | 7.77 | 0.72 | 7.62 | 3.50E-13 | 6.46E-11 | up CINSARC High vs. Low |
| RADS51A1 | RADS51 associated protein | 12p13.32 | 10635 | 7.48 | 8.10 | 0.62 | 7.55 | 5.43E-13 | 9.84E-11 | up CINSARC High vs. Low |
| CDKN3 | cyclin dependent kinase ini | 14q22.2 | 1033 | 7.14 | 7.79 | 0.66 | 7.52 | 6.54E-13 | 1.15E-10 | up CINSARC High vs. Low |
| PLK1 | polo like kinase 1 | 16p12.2 | 5347 | 8.74 | 9.40 | 0.66 | 7.52 | 6.56E-13 | 1.15E-10 | up CINSARC High vs. Low |
| DSCC1 | DNA replication and sister | 8q24.12 | 79075 | 7.22 | 7.97 | 0.74 | 7.51 | 6.78E-13 | 1.17E-10 | up CINSARC High vs. Low |
| AURKB | aurora kinase B | 17p13.1 | 9212 | 7.05 | 7.84 | 0.78 | 7.44 | 1.06E-12 | 1.78E-10 | up CINSARC High vs. Low |
| TOP2A | DNA topoisomerase II alph | 17q21.2 | 7153 | 11.32 | 12.12 | 0.80 | 7.44 | 1.09E-12 | 1.80E-10 | up CINSARC High vs. Low |
| MELK | maternal embryonic leucin | 9p13.2 | 9833 | 8.03 | 8.71 | 0.68 | 7.41 | 1.30E-12 | 2.10E-10 | up CINSARC High vs. Low |
| PTTG1 | PTTG1 regulator of sister c | 5q33.3 | 9232 | 8.30 | 8.98 | 0.68 | 7.40 | 1.37E-12 | 2.19E-10 | up CINSARC High vs. Low |
| MK167 | marker of proliferation Ki-6 | 10q26.2 | 4288 | 10.61 | 11.30 | 0.69 | 7.38 | 1.56E-12 | 2.46E-10 | up CINSARC High vs. Low |
| ESPL1 | extra spindle pole bodies li | 12q13.13 | 9700 | 8.30 | 8.98 | 0.68 | 7.37 | 1.65E-12 | 2.56E-10 | up CINSARC High vs. Low |
| ANLN | anillin actin binding protein | 7p14.2 | 54443 | 9.17 | 9.84 | 0.67 | 7.34 | 2.10E-12 | 3.16E-10 | up CINSARC High vs. Low |
| SHCBP1 | SHC binding and spindle a | 16q11.2 | 79801 | 7.45 | 8.12 | 0.69 | 7.29 | 2.86E-12 | 4.25E-10 | up CINSARC High vs. Low |
| FAM72A | family with sequence simila | 1q32.1 | 729533 | 4.65 | 5.51 | 0.86 | 7.25 | 3.59E-12 | 5.12E-10 | up CINSARC High vs. Low |
| PIMREG | PICALM interacting mitotic | 17p13.2 | 54478 | 6.39 | 7.06 | 0.67 | 7.19 | 5.15E-12 | 7.25E-10 | up CINSARC High vs. Low |
| FAM83D | family with sequence simila | 20q11.23 | 81610 | 7.92 | 8.69 | 0.77 | 7.05 | 1.22E-11 | 1.67E-09 | up CINSARC High vs. Low |
| CIF2A | cell proliferation regulatin | 3q13.13 | 57650 | 7.28 | 8.00 | 0.72 | 7.03 | 1.43E-11 | 1.94E-09 | up CINSARC High vs. Low |
| INAVA | innate immunity activator | 1q32.1 | 55765 | 5.13 | 7.06 | 1.93 | 7.00 | 1.71E-11 | 2.29E-09 | up CINSARC High vs. Low |
| IQGAP3 | IQ motif containing GTPas | 1q22 | 128239 | 9.13 | 9.75 | 0.62 | 7.00 | 1.75E-11 | 2.31E-09 | up CINSARC High vs. Low |
| UBE2T | ubiquitin conjugating enzyr | 1q32.1 | 29089 | 8.56 | 9.18 | 0.62 | 6.97 | 2.08E-11 | 2.71E-09 | up CINSARC High vs. Low |
| CDC20 | cell division cycle 20 | 1p34.2 | 991 | 8.68 | 9.36 | 0.69 | 6.94 | 2.49E-11 | 3.21E-09 | up CINSARC High vs. Low |
| FAM72D | family with sequence simila | 1q21.1 | 728833 | 5.55 | 6.35 | 0.79 | 6.86 | 3.90E-11 | 4.91E-09 | up CINSARC High vs. Low |
| HASPIN | histone H3 associated prot | 17p13.2 | 83903 | 5.45 | 6.09 | 0.64 | 6.81 | 5.42E-11 | 6.52E-09 | up CINSARC High vs. Low |
| NEIL3 | nei like DNA glycosylase 3 | 4q34.3 | 55247 | 5.77 | 6.42 | 0.65 | 6.78 | 6.62E-11 | 7.87E-09 | up CINSARC High vs. Low |
| RTKN2 | roctekin 2 | 10q21.2 | 219790 | 6.95 | 7.66 | 0.70 | 6.76 | 7.18E-11 | 8.44E-09 | up CINSARC High vs. Low |
| KIF18A | kinesin family member 18A | 11p14.1 | 81930 | 7.07 | 7.70 | 0.63 | 6.73 | 8.86E-11 | 1.01E-08 | up CINSARC High vs. Low |
| DEPDC1 | DEP domain containing 1 | 1p31.3 | 55635 | 7.48 | 8.17 | 0.69 | 6.73 | 8.95E-11 | 1.01E-08 | up CINSARC High vs. Low |
| PIF1 | PIF1 5'-to-3' DNA helicase | 15q22.31 | 80119 | 4.56 | 5.39 | 0.84 | 6.60 | 1.85E-10 | 2.06E-08 | up CINSARC High vs. Low |
| PRR11 | proline rich 11 | 17q22 | 55771 | 6.05 | 7.04 | 0.99 | 6.50 | 3.46E-10 | 3.74E-08 | up CINSARC High vs. Low |
| MYBL2 | MYB proto-oncogene like 2 | 20q13.12 | 4605 | 9.16 | 10.07 | 0.91 | 6.44 | 4.83E-10 | 5.16E-08 | up CINSARC High vs. Low |
| E2F8 | E2F transcription factor 8 | 11p15.1 | 79733 | 6.47 | 7.29 | 0.81 | 6.35 | 8.17E-10 | 8.40E-08 | up CINSARC High vs. Low |
| SQLE | squalene epoxidase | 8q24.13 | 6713 | 10.52 | 11.29 | 0.78 | 6.32 | 9.77E-10 | 9.95E-08 | up CINSARC High vs. Low |
| EXO1 | exonuclease 1 | 1q43 | 9156 | 7.57 | 8.18 | 0.62 | 6.27 | 1.29E-09 | 1.29E-07 | up CINSARC High vs. Low |
| ORC1 | origin recognition complex | 1p32.3 | 4998 | 6.35 | 6.96 | 0.61 | 6.19 | 1.95E-09 | 1.88E-07 | up CINSARC High vs. Low |
| CCNE2 | cyclin E2 | 8q22.1 | 9134 | 7.90 | 8.58 | 0.68 | 6.17 | 2.24E-09 | 2.06E-07 | up CINSARC High vs. Low |
| LAD1 | ladinin 1 | 1q32.1 | 3898 | 7.98 | 9.25 | 1.27 | 6.15 | 2.53E-09 | 2.29E-07 | up CINSARC High vs. Low |
| CENPI | centromere protein I | Xq22.1 | 2491 | 5.75 | 6.45 | 0.69 | 6.09 | 3.43E-09 | 2.98E-07 | up CINSARC High vs. Low |
| ORC6 | origin recognition complex | 16q11.2 | 23594 | 6.62 | 7.26 | 0.64 | 5.85 | 1.33E-08 | 9.91E-07 | up CINSARC High vs. Low |
| RAD54B | RAD54 homolog B | 8q22.1 | 25788 | 7.33 | 7.93 | 0.60 | 5.81 | 1.64E-08 | 1.19E-06 | up CINSARC High vs. Low |
| DNMT3B | DNA methyltransferase 3 b | 20q11.21 | 1789 | 6.54 | 7.18 | 0.64 | 5.76 | 2.07E-08 | 1.46E-06 | up CINSARC High vs. Low |
| CCNE1 | cyclin E1 | 19q12 | 898 | 5.70 | 6.38 | 0.67 | 5.63 | 4.20E-08 | 2.74E-06 | up CINSARC High vs. Low |
| MEX3A | mex-3 RNA binding family | 1q22 | 92312 | 8.59 | 9.41 | 0.82 | 5.63 | 4.25E-08 | 2.76E-06 | up CINSARC High vs. Low |
| CDC6 | cell division cycle 6 | 17q21.2 | 990 | 8.65 | 9.25 | 0.60 | 5.53 | 6.87E-08 | 4.22E-06 | up CINSARC High vs. Low |
| CTNND2 | catenin delta 2 | 5p15.2 | 1501 | 6.84 | 8.28 | 1.44 | 5.39 | 1.44E-07 | 7.93E-06 | up CINSARC High vs. Low |
| MMD | monocyte to macrophage c | 17q22 | 23531 | 7.90 | 8.55 | 0.65 | 5.38 | 1.48E-07 | 8.11E-06 | up CINSARC High vs. Low |
| KLF5 | Kruppel like factor 5 | 13q22.1 | 688 | 6.93 | 7.85 | 0.92 | 5.18 | 4.14E-07 | 1.98E-05 | up CINSARC High vs. Low |
| C18orf54 | chromosome 18 open read | 18q21.2 | 162681 | 6.52 | 7.15 | 0.63 | 5.07 | 6.94E-07 | 3.16E-05 | up CINSARC High vs. Low |
| NMU | neuromedin U | 4q12 | 1087 | | | | | | | |

| Symbol | description | Cytoband | Entrez Gene ID | Low-risk (mean_log2) | High-risk (mean_log2) | High vs. Low (log2-ratio) | t | p-value | q-value | Associated to |
|-----------|----------------------------------|----------------|----------------|----------------------|-----------------------|---------------------------|------|----------|----------|-------------------------|
| GPX2 | glutathione peroxidase 2 | 14q23.3 | 2877 | 2.79 | 4.18 | 1.39 | 4.93 | 1.37E-06 | 5.59E-05 | up CINSARC High vs. Low |
| SIN3HCAF | SIN3-HDAC complex asso | 12p11.21 | 58516 | 9.35 | 10.02 | 0.68 | 4.91 | 1.48E-06 | 5.85E-05 | up CINSARC High vs. Low |
| CCDC150 | coiled-coil domain containi | 2q33.1 | 284992 | 4.00 | 4.66 | 0.65 | 4.91 | 1.48E-06 | 5.85E-05 | up CINSARC High vs. Low |
| GAS2L3 | growth arrest specific 2 like | 12q23.1 | 283431 | 5.42 | 6.09 | 0.67 | 4.83 | 2.17E-06 | 8.19E-05 | up CINSARC High vs. Low |
| MSMB | microseminoprotein beta | 10q11.22 | 4477 | 4.28 | 6.27 | 1.99 | 4.76 | 3.03E-06 | 1.10E-04 | up CINSARC High vs. Low |
| GFR3 | GDNF family receptor alpha | 5q31.2 | 2676 | 1.09 | 1.71 | 0.61 | 4.70 | 4.05E-06 | 1.38E-04 | up CINSARC High vs. Low |
| PKP1 | plakophilin 1 | 1q32.1 | 5317 | 4.88 | 6.27 | 1.39 | 4.64 | 5.21E-06 | 1.67E-04 | up CINSARC High vs. Low |
| KNL1 | kinetochore scaffold 1 | 15q15.1 | 57082 | 7.29 | 7.94 | 0.65 | 4.62 | 5.81E-06 | 1.83E-04 | up CINSARC High vs. Low |
| RPRM | reprimin, TP53 dependent f | 2q23.3 | 56475 | 0.88 | 1.61 | 0.73 | 4.59 | 6.42E-06 | 1.97E-04 | up CINSARC High vs. Low |
| TAF4B | TATA-box binding protein f | 18q11.2 | 6875 | 6.18 | 6.83 | 0.66 | 4.57 | 7.04E-06 | 2.12E-04 | up CINSARC High vs. Low |
| AIF1L | allograft inflammatory fact | 9q34.12-q34.13 | 83543 | 8.49 | 9.33 | 0.84 | 4.57 | 7.16E-06 | 2.15E-04 | up CINSARC High vs. Low |
| GGH | gamma-glutamyl hydrolase | 8q12.3 | 8836 | 8.17 | 8.96 | 0.79 | 4.51 | 9.45E-06 | 2.70E-04 | up CINSARC High vs. Low |
| LRP8 | LDL receptor related protei | 1p32.3 | 7804 | 6.57 | 7.17 | 0.60 | 4.48 | 1.05E-05 | 2.92E-04 | up CINSARC High vs. Low |
| ZC2HC1A | zinc finger C2HC-type conti | 8q21.13 | 51101 | 7.22 | 7.95 | 0.74 | 4.48 | 1.08E-05 | 2.98E-04 | up CINSARC High vs. Low |
| MND1 | meiotic nuclear divisions 1 | 4q31.3 | 84057 | 5.55 | 6.16 | 0.61 | 4.47 | 1.09E-05 | 2.99E-04 | up CINSARC High vs. Low |
| UGT8 | UDP glycosyltransferase 8 | 4q26 | 7368 | 2.13 | 3.04 | 0.92 | 4.45 | 1.23E-05 | 3.27E-04 | up CINSARC High vs. Low |
| MYBL1 | MYB proto-oncogene like 1 | 8q13.1 | 4603 | 7.85 | 8.54 | 0.69 | 4.42 | 1.39E-05 | 3.56E-04 | up CINSARC High vs. Low |
| TNNI1 | tropomyosin I1, slow skeletal ty | 1q32.1 | 7135 | 3.33 | 4.29 | 0.96 | 4.42 | 1.40E-05 | 3.58E-04 | up CINSARC High vs. Low |
| CBX2 | chromobox 2 | 17q25.3 | 84733 | 7.13 | 8.02 | 0.89 | 4.41 | 1.42E-05 | 3.61E-04 | up CINSARC High vs. Low |
| CAMP | cathelicidin antimicrobial pe | 3p21.31 | 820 | 2.71 | 3.79 | 1.08 | 4.38 | 1.68E-05 | 4.11E-04 | up CINSARC High vs. Low |
| FAM3B | family with sequence simila | 21q22.3 | 54097 | 4.54 | 6.19 | 1.65 | 4.36 | 1.82E-05 | 4.36E-04 | up CINSARC High vs. Low |
| BRIP1 | BRCA1 interacting protein | 17q23.2 | 83990 | 6.94 | 7.54 | 0.59 | 4.35 | 1.85E-05 | 4.40E-04 | up CINSARC High vs. Low |
| FIB | nuclear factor 1B | 9p23-p22.3 | 4781 | 9.05 | 9.71 | 0.66 | 4.34 | 1.93E-05 | 4.53E-04 | up CINSARC High vs. Low |
| PFN2 | profilin 2 | 3q25.1 | 5217 | 10.33 | 10.93 | 0.60 | 4.33 | 2.03E-05 | 4.68E-04 | up CINSARC High vs. Low |
| CNIH2 | cornichon family AMPA rec | 11q13.2 | 254263 | 5.59 | 6.23 | 0.64 | 4.32 | 2.15E-05 | 4.89E-04 | up CINSARC High vs. Low |
| CTSV | cathepsin V | 9q22.33 | 1515 | 5.69 | 6.32 | 0.63 | 4.31 | 2.25E-05 | 5.04E-04 | up CINSARC High vs. Low |
| ZNF711 | zinc finger protein 711 | Xq21.1 | 7552 | 5.46 | 6.35 | 0.89 | 4.30 | 2.31E-05 | 5.16E-04 | up CINSARC High vs. Low |
| GABBR2 | gamma-aminobutyric acid 1 | 9q22.33 | 9568 | 0.42 | 1.12 | 0.70 | 4.29 | 2.45E-05 | 5.43E-04 | up CINSARC High vs. Low |
| SDK2 | sidekick cell adhesion mole | 17q25.1 | 54549 | 5.03 | 6.30 | 1.26 | 4.24 | 3.04E-05 | 6.46E-04 | up CINSARC High vs. Low |
| RNF43 | ring finger protein 43 | 17q22 | 54894 | 8.55 | 9.42 | 0.87 | 4.22 | 3.25E-05 | 6.80E-04 | up CINSARC High vs. Low |
| WVE | von Willebrand factor D an | 7p21.3 | 221806 | 2.34 | 3.51 | 1.17 | 4.22 | 3.28E-05 | 6.82E-04 | up CINSARC High vs. Low |
| CHRNA5 | cholinergic receptor nicotin | 15q25.1 | 1138 | 4.64 | 5.47 | 0.83 | 4.21 | 3.32E-05 | 6.89E-04 | up CINSARC High vs. Low |
| PRAME | preferentially expressed ar | 22q11.22 | 23532 | 3.19 | 5.33 | 2.14 | 4.20 | 3.54E-05 | 7.24E-04 | up CINSARC High vs. Low |
| LAPT4B | lysosomal protein transme | 8q22.1 | 55353 | 11.46 | 12.14 | 0.68 | 4.19 | 3.71E-05 | 7.53E-04 | up CINSARC High vs. Low |
| FAM171A2 | family with sequence simila | 17q21.31 | 284069 | 4.86 | 5.54 | 0.67 | 4.18 | 3.83E-05 | 7.73E-04 | up CINSARC High vs. Low |
| ACPP | acid phosphatase, prostate | 3q22.1 | 55 | 4.19 | 4.88 | 0.69 | 4.17 | 4.03E-05 | 8.01E-04 | up CINSARC High vs. Low |
| MYCN | MYCN proto-oncogene, b | 2p24.3 | 4613 | 3.38 | 4.19 | 0.81 | 4.14 | 4.57E-05 | 8.84E-04 | up CINSARC High vs. Low |
| CHST9 | carbohydrate sulfotransfer | 18q11.2 | 83539 | 2.52 | 3.44 | 0.92 | 4.13 | 4.76E-05 | 9.10E-04 | up CINSARC High vs. Low |
| DSC2 | desmocollin 2 | 18q12.1 | 1824 | 8.68 | 9.41 | 0.73 | 4.10 | 5.23E-05 | 9.84E-04 | up CINSARC High vs. Low |
| LOC148709 | actin gamma 1 pseudogen | 1q32.1 | 148709 | 3.38 | 4.03 | 0.65 | 4.10 | 5.43E-05 | 1.02E-03 | up CINSARC High vs. Low |
| SLC7A5 | solute carrier family 7 mem | 16q24.2 | 8140 | 9.87 | 10.52 | 0.65 | 4.05 | 6.64E-05 | 1.19E-03 | up CINSARC High vs. Low |
| PKHD1L1 | PKHD1 like 1 | 8q23.1-q23.2 | 93035 | 1.30 | 1.97 | 0.67 | 4.04 | 6.70E-05 | 1.20E-03 | up CINSARC High vs. Low |
| IKZF2 | IKAROS family zinc finger : | 2q34 | 22807 | 7.06 | 7.84 | 0.79 | 4.03 | 7.11E-05 | 1.26E-03 | up CINSARC High vs. Low |
| ADTRP | androgen dependent TFPI | 6p24.1 | 84830 | 2.87 | 3.48 | 0.61 | 4.00 | 7.95E-05 | 1.36E-03 | up CINSARC High vs. Low |
| CB2 | calcium and integrin bindin | 15q25.1 | 10518 | 4.98 | 5.58 | 0.60 | 3.95 | 9.92E-05 | 1.61E-03 | up CINSARC High vs. Low |
| FAM83A | family with sequence simila | 8q24.13 | 84985 | 3.64 | 4.85 | 1.22 | 3.93 | 1.06E-04 | 1.69E-03 | up CINSARC High vs. Low |
| STXBP5L | syntaxin binding protein 5 l | 3q13.33 | 9515 | 1.00 | 1.84 | 0.84 | 3.89 | 1.22E-04 | 1.88E-03 | up CINSARC High vs. Low |
| FS1 | fibronectin type III and SP | 19p13.3 | 79187 | 1.13 | 1.81 | 0.68 | 3.88 | 1.30E-04 | 1.98E-03 | up CINSARC High vs. Low |
| CNGA2 | cyclic nucleotide gated cha | Xq28 | 1260 | 0.48 | 1.28 | 0.80 | 3.87 | 1.36E-04 | 2.04E-03 | up CINSARC High vs. Low |
| PARM1 | prostate androgen-regulate | 4q13.3 | 25849 | 8.29 | 8.94 | 0.65 | 3.86 | 1.40E-04 | 2.08E-03 | up CINSARC High vs. Low |
| STYK1 | serine/threonine/tyrosine ki | 12p13.2 | 55359 | 5.24 | 6.09 | 0.85 | 3.85 | 1.47E-04 | 2.17E-03 | up CINSARC High vs. Low |
| SCN8A | sodium voltage-gated char | 12q13.13 | 6334 | 4.10 | 4.92 | 0.82 | 3.84 | 1.49E-04 | 2.18E-03 | up CINSARC High vs. Low |
| TEX19 | testis expressed 19 | 17q25.3 | 400629 | 2.22 | 3.10 | 0.88 | 3.84 | 1.50E-04 | 2.19E-03 | up CINSARC High vs. Low |
| GPC2 | glypican 2 | 7q22.1 | 221914 | 3.62 | 4.28 | 0.66 | 3.80 | 1.78E-04 | 2.53E-03 | up CINSARC High vs. Low |
| EDARADD | EDAR associated death dc | 1q42.3-q43 | 128178 | 7.59 | 8.47 | 0.87 | 3.78 | 1.91E-04 | 2.67E-03 | up CINSARC High vs. Low |
| AREG | amphiregulin | 4q13.3 | 374 | 6.34 | 7.58 | 1.24 | 3.77 | 1.99E-04 | 2.75E-03 | up CINSARC High vs. Low |
| SCML2 | Scm polycomb group prote | Xp22.13 | 10389 | 5.22 | 5.92 | 0.70 | 3.76 | 2.05E-04 | 2.79E-03 | up CINSARC High vs. Low |
| MAGEA4 | MAGE family member A4 | Xq28 | 4103 | 0.15 | 0.74 | 0.59 | 3.72 | 2.38E-04 | 3.12E-03 | up CINSARC High vs. Low |
| ONECUT2 | one cut homeobox 2 | 18q21.31 | 9480 | 3.06 | 4.35 | 1.29 | 3.71 | 2.44E-04 | 3.15E-03 | up CINSARC High vs. Low |
| CYP2J2 | cytochrome P450 family 2 : | 1p32.1 | 1573 | 6.66 | 7.39 | 0.73 | 3.69 | 2.62E-04 | 3.33E-03 | up CINSARC High vs. Low |
| SLC4A8 | solute carrier family 4 mem | 12q13.13 | 9498 | 8.33 | 9.06 | 0.74 | 3.69 | 2.64E-04 | 3.34E-03 | up CINSARC High vs. Low |
| KLHL13 | kelch like family member 1 : | Xq24 | 90293 | 5.18 | 5.86 | 0.68 | 3.69 | 2.68E-04 | 3.39E-03 | up CINSARC High vs. Low |
| RAB39B | RAB39B, member RAS on | Xq28 | 116442 | 4.92 | 5.87 | 0.95 | 3.67 | 2.87E-04 | 3.53E-03 | up CINSARC High vs. Low |
| SLC15A2 | solute carrier family 15 mei | 3q13.33 | 6565 | 4.63 | 5.33 | 0.70 | 3.60 | 3.69E-04 | 4.20E-03 | up CINSARC High vs. Low |
| HNF4G | hepatocyte nuclear factor 4 | 8q21.13 | 3174 | 4.20 | 5.07 | 0.87 | 3.60 | 3.71E-04 | 4.21E-03 | up CINSARC High vs. Low |
| GAREM1 | GRB2 associated regulato | 18q12.1 | 64762 | 5.83 | 6.47 | 0.65 | 3.59 | 3.89E-04 | 4.34E-03 | up CINSARC High vs. Low |
| DMRTA1 | DMRT like family A1 | 9p21.3 | 63951 | 1.60 | 2.36 | 0.76 | 3.59 | 3.91E-04 | 4.35E-03 | up CINSARC High vs. Low |
| MMP1 | matrix metalloproteinase 1 | 11q22.2 | 4312 | 5.86 | 7.00 | 1.14 | 3.57 | 4.10E-04 | 4.50E-03 | up CINSARC High vs. Low |
| DLL3 | delta like canonical Notch I | 19q13.2 | 10683 | 1.27 | 2.13 | 0.87 | 3.57 | 4.19E-04 | 4.56E-03 | up CINSARC High vs. Low |
| TNNI2 | tropomyosin T2, cardiac ty | 1q32.1 | 7139 | 0.88 | 1.52 | 0.64 | 3.56 | 4.25E-04 | 4.61E-03 | up CINSARC High vs. Low |
| FGF13 | fibroblast growth factor 13 | Xq26.3-q27.1 | 2258 | 6.49 | 7.24 | 0.76 | 3.55 | 4.47E-04 | 4.76E-03 | up CINSARC High vs. Low |
| LRR1Q1 | leucine rich repeats and IQ | 12q21.31 | 84125 | 3.02 | 3.94 | 0.93 | 3.55 | 4.52E-04 | 4.79E-03 | up CINSARC High vs. Low |
| HSPA4L | heat shock protein family A | 4q28.1 | 22824 | 6.46 | 7.13 | 0.67 | 3.55 | 4.53E-04 | 4.79E-03 | up CINSARC High vs. Low |
| MAGEA1 | MAGE family member A1 | Xq28 | 4100 | 1.22 | 2.45 | 1.23 | 3.54 | 4.72E-04 | 4.95E-03 | up CINSARC High vs. Low |
| RHBG | Rh family B glycoprotein (g | 1q22 | 57127 | 3.17 | 3.93 | 0.75 | 3.53 | 4.79E-04 | 4.99E-03 | up CINSARC High vs. Low |
| CARML3 | capping protein regulator a | 14q11.2 | 90668 | 3.52 | 4.24 | 0.73 | 3.53 | 4.79E-04 | 4.99E-03 | up CINSARC High vs. Low |
| TTPA | alpha tocopherol transfer p | 8q12.3 | 7274 | 1.51 | 2.22 | 0.71 | 3.52 | 4.91E-04 | 5.08E-03 | up CINSARC High vs. Low |
| TSPAN8 | tetraspanin 8 | 12q21.1 | 7103 | 1.46 | 2.66 | 1.19 | 3.52 | 4.94E-04 | 5.09E-03 | up CINSARC High vs. Low |
| EPHA7 | EPH receptor A7 | 6q16.1 | 2045 | 2.89 | 3.71 | 0.82 | 3.52 | 5.01E-04 | 5.14E-03 | up CINSARC High vs. Low |
| SAMD11 | sterile alpha motif domain c | 1p36.33 | 148398 | 4.87 | 5.86 | 0.99 | 3.51 | 5.16E-04 | 5.28E-03 | up CINSARC High vs. Low |
| SEPT3 | septin 3 | 22q13.2 | 55964 | 7.44 | 8.09 | 0.65 | 3.49 | 5.61E-04 | 5.60E-03 | up CINSARC High vs. Low |
| SLITRK5 | SLIT and NTRK like family | 13q31.2 | 26050 | 2.46 | 3.38 | 0.92 | 3.49 | 5.63E-04 | 5.61E-03 | up CINSARC High vs. Low |
| CRYBG2 | crystallin beta-gamma dom | 1p36.11 | 55057 | 3.29 | 4.00 | 0.71 | 3.48 | 5.67E-04 | 5.62E-03 | up CINSARC High vs. Low |
| WASF3 | WASP family member 3 | 13q12.13 | 10810 | 6.18 | 6.77 | 0.59 | 3.47 | 5.99E-04 | 5.85E-03 | up CINSARC High vs. Low |
| RFX6 | regulatory factor X6 | 6q22.1 | 222546 | 0.64 | 1.31 | 0.67 | 3.46 | 6.09E-04 | 5.93E-03 | up CINSARC High vs. Low |
| SLCO4C1 | solute carrier organic anion | 5q21.1 | 353189 | 2.70 | 3.36 | 0.66 | 3.44 | 6.61E-04 | 6.31E-03 | up CINSARC High vs. Low |
| TMEM40 | transmembrane protein 40 | 3p25.2 | 55287 | 2.40 | 3.36 | 0.97 | 3.43 | 6.82E-04 | 6.47E-03 | up CINSARC High vs. Low |
| CCL18 | C-C motif chemokine ligand | 17q12 | 6362 | 4.26 | 5.15 | 0.89 | 3.41 | 7.29E-04 | 6.81E-03 | up CINSARC High vs. Low |
| PIK3C2G | phosphatidylinositol-4-phos | 12p12.3 | 5288 | 2.24 | 2.99 | 0.76 | 3.41 | 7.37E-04 | 6.86E-03 | up CINSARC High vs. Low |
| IL19 | interleukin 19 | 1q32.1 | 29949 | 1.59 | 2.57 | 0.98 | 3.40 | 7.59E-04 | 6.99E-03 | up CINSARC High vs. Low |
| ZYG11A | zyg-11 family member A, c | 1p32.3 | 440590 | 5.79 | 6.46 | 0.67 | 3.40 | 7.77E-04 | 7.11E-03 | up CINSARC High vs. Low |
| DLX4 | distal-less homeobox 4 | 17q21.33 | 1748 | 3.60 | 4.26 | 0.66 | 3.36 | 8.75E-04 | 7.78E-03 | up CINSARC High vs. Low |
| PSCA | prostate stem cell antigen | 8q24.3 | 8000 | 4.25 | 5.47 | 1.22 | 3.35 | 9.10E-04 | 8.00E-03 | up CINSARC High vs. Low |
| TSPAN5 | tetraspanin 5 | 4q23 | 10098 | 6.01 | 6.88 | 0.67 | 3.30 | 1.08E-03 | 9.10E-03 | up CINSARC High vs. Low |
| TENM2 | teneurin transmembrane pi | 5q34 | 57451 | 4.43 | 5.18 | 0.75 | 3.29 | 1.12E-03 | 9.28E-03 | up CINSARC High vs. Low |
| ULBP1 | UL16 binding protein 1 | 6q25.1 | 80329 | 3.07 | 3.75 | 0.68 | 3.29 | 1.12E-03 | 9.28E-03 | up CINSARC High vs. Low |
| HS6ST3 | heparan sulfate 6-O-sulfot | 13q32.1 | 266722 | 6.10 | 7.29 | 1.18 | 3.27 | 1.20E-03 | 9.72E-03 | up CINSARC High vs. Low |
| GABRA3 | gamma-aminobutyric acid 1 | Xq28 | 2556 | 0.50 | 1.23 | 0.72 | 3.24 | 1.32E-03 | 1.04E-02 | up CINSARC High vs. Low |
| ADGRG6 | adhesion G protein-couple | 6q24.2 | 57211 | 6.21 | 7.01 | 0.80 | 3.24 | 1.34E-03 | 1.05E-02 | up CINSARC High vs. Low |
| EYA2 | EYA transcriptional coactiv | 20q13.12 | 2139 | 6.99 | 7.79 | 0.80 | 3.24 | 1.35E-03 | 1.06E-02 | up CINSARC High vs. Low |
| ALG1L | ALG1 chitobiosylidiphosph | 3q21.2 | 200810 | 3.72 | 4.60 | 0.88 | 3.23 | 1.36E-03 | 1.06E-02 | up CINSARC High vs. Low |
| FIGN | figetin, microtubule | | | | | | | | | |

| Symbol | description | Cytoband | Entrez Gene ID | Low-risk (mean_log2) | High-risk (mean_log2) | High vs.Low (log2-ratio) | t | p-value | q-value | Associated to |
|------------|--------------------------------|--------------|-------------------|-------------------------|--------------------------|-----------------------------|------|----------|----------|-------------------------|
| MUC13 | mucin 13, cell surface assoc | 3q21.2 | 56667 | 0.95 | 1.67 | 0.72 | 3.14 | 1.84E-03 | 1.32E-02 | up CINSARC High vs. Low |
| IYD | iodotyrosine deiodinase | 6q25.1 | 389434 | 3.41 | 4.32 | 0.92 | 3.13 | 1.90E-03 | 1.34E-02 | up CINSARC High vs. Low |
| EFS | embryonal Fyn-associated | 14q11.2 | 10278 | 8.13 | 8.79 | 0.66 | 3.13 | 1.95E-03 | 1.36E-02 | up CINSARC High vs. Low |
| GAGE12D | G antigen 12D | Xp11.23 | 100132399 | 0.11 | 0.84 | 0.72 | 3.13 | 1.95E-03 | 1.36E-02 | up CINSARC High vs. Low |
| MMP3 | matrix metalloproteinase 3 | 11q22.2 | 4314 | 5.65 | 6.45 | 0.80 | 3.11 | 2.06E-03 | 1.42E-02 | up CINSARC High vs. Low |
| DLX3 | distal-less homeobox 3 | 17q21.33 | 1747 | 4.79 | 5.60 | 0.81 | 3.11 | 2.07E-03 | 1.42E-02 | up CINSARC High vs. Low |
| EFNB3 | ephrin B3 | 17p13.1 | 1949 | 5.54 | 6.17 | 0.63 | 3.08 | 2.25E-03 | 1.50E-02 | up CINSARC High vs. Low |
| SFTPA2 | surfactant protein A2 | 10q22.3 | 729238 | 3.11 | 3.92 | 0.80 | 3.06 | 2.41E-03 | 1.57E-02 | up CINSARC High vs. Low |
| MSI1 | musashi RNA binding protei | 12q24.31 | 4440 | 4.92 | 5.82 | 0.90 | 3.06 | 2.43E-03 | 1.58E-02 | up CINSARC High vs. Low |
| ARX | aristaeless related homeobc | Xp21.3 | 170302 | 1.87 | 2.80 | 0.93 | 3.05 | 2.49E-03 | 1.60E-02 | up CINSARC High vs. Low |
| L1CAM | L1 cell adhesion molecule | Xq28 | 3897 | 3.85 | 4.68 | 0.84 | 3.05 | 2.50E-03 | 1.61E-02 | up CINSARC High vs. Low |
| NAP1L2 | nucleosome assembly prot | Xq13.2 | 4674 | 4.09 | 4.76 | 0.67 | 3.04 | 2.56E-03 | 1.62E-02 | up CINSARC High vs. Low |
| PADI3 | peptidyl arginine deiminase | 1p36.13 | 51702 | 1.78 | 2.53 | 0.75 | 3.00 | 2.96E-03 | 1.79E-02 | up CINSARC High vs. Low |
| LHX1 | LIM homeobox 1 | 17q12 | 3975 | 0.58 | 1.21 | 0.63 | 2.98 | 3.11E-03 | 1.84E-02 | up CINSARC High vs. Low |
| TMSB15A | thymosin beta 15a | Xq22.1 | 11013 | 3.49 | 4.09 | 0.60 | 2.97 | 3.27E-03 | 1.90E-02 | up CINSARC High vs. Low |
| SLC9A2 | solute carrier family 9 mem | 2q12.1 | 6549 | 4.04 | 5.20 | 1.17 | 2.95 | 3.43E-03 | 1.97E-02 | up CINSARC High vs. Low |
| ST6GALNAC1 | ST6 N-acetylgalactosami | 17q25.1 | 55808 | 2.67 | 3.33 | 0.66 | 2.94 | 3.55E-03 | 2.02E-02 | up CINSARC High vs. Low |
| SLAIN1 | SLAIN motif family membe | 13q22.3 | 122060 | 3.75 | 4.46 | 0.71 | 2.94 | 3.58E-03 | 2.03E-02 | up CINSARC High vs. Low |
| GPR158 | G protein-coupled receptor | 10p12.1 | 57512 | 3.25 | 4.05 | 0.79 | 2.94 | 3.58E-03 | 2.03E-02 | up CINSARC High vs. Low |
| ADCY5 | adenylate cyclase 5 | 3q21.1 | 111 | 5.22 | 6.15 | 0.93 | 2.93 | 3.60E-03 | 2.03E-02 | up CINSARC High vs. Low |
| NXPH1 | neurexophilin 1 | 7p21.3 | 30010 | 1.94 | 3.02 | 1.08 | 2.93 | 3.70E-03 | 2.08E-02 | up CINSARC High vs. Low |
| ATP1A3 | ATPase Na+/K+ transporti | 19q13.2 | 478 | 4.42 | 5.30 | 0.88 | 2.92 | 3.75E-03 | 2.10E-02 | up CINSARC High vs. Low |
| TMPRSS4 | transmembrane serine pro | 11q23.3 | 56649 | 4.30 | 5.34 | 1.04 | 2.90 | 3.97E-03 | 2.17E-02 | up CINSARC High vs. Low |
| SLC27A6 | solute carrier family 27 mei | 5q23.3 | 28965 | 2.56 | 3.24 | 0.68 | 2.89 | 4.14E-03 | 2.23E-02 | up CINSARC High vs. Low |
| S100A8 | S100 calcium binding prote | 1q21.3 | 6279 | 4.64 | 5.36 | 0.72 | 2.89 | 4.16E-03 | 2.24E-02 | up CINSARC High vs. Low |
| GAGE4 | G antigen 4 | Xp11.4-p11.2 | 2576 | 0.15 | 0.82 | 0.66 | 2.89 | 4.16E-03 | 2.24E-02 | up CINSARC High vs. Low |
| SLC6A15 | solute carrier family 6 mem | 12q21.31 | 55117 | 0.80 | 1.39 | 0.59 | 2.88 | 4.31E-03 | 2.28E-02 | up CINSARC High vs. Low |
| PLCH1 | phospholipase C eta 1 | 3q25.31 | 23007 | 5.00 | 5.92 | 0.92 | 2.86 | 4.47E-03 | 2.34E-02 | up CINSARC High vs. Low |
| OGDHL | oxoglutarate dehydrogenas | 10q11.23 | 55753 | 1.51 | 2.23 | 0.71 | 2.86 | 4.49E-03 | 2.34E-02 | up CINSARC High vs. Low |
| VSTM2L | V-set and transmembrane | 20q11.23 | 128434 | 3.88 | 4.66 | 0.78 | 2.85 | 4.68E-03 | 2.41E-02 | up CINSARC High vs. Low |
| GALNT3 | polypeptide N-acetylgalact | 2q24.3 | 2591 | 7.96 | 8.69 | 0.73 | 2.85 | 4.69E-03 | 2.42E-02 | up CINSARC High vs. Low |
| SERPINC5 | serpin family B member 5 | 18q21.33 | 5268 | 4.28 | 5.11 | 0.82 | 2.84 | 4.89E-03 | 2.48E-02 | up CINSARC High vs. Low |
| TTL7 | tubulin tyrosine ligase like | 1p31.1 | 79739 | 5.34 | 5.98 | 0.64 | 2.83 | 4.93E-03 | 2.49E-02 | up CINSARC High vs. Low |
| FAM178B | family with sequence simila | 2q11.2 | 51252 | 3.42 | 4.15 | 0.73 | 2.82 | 5.10E-03 | 2.55E-02 | up CINSARC High vs. Low |
| ZBED9 | zinc finger BED-type conta | 6p22.1 | 114821 | 3.29 | 4.14 | 0.86 | 2.82 | 5.12E-03 | 2.55E-02 | up CINSARC High vs. Low |
| IL6 | interleukin 6 | 7p15.3 | 3569 | 2.94 | 3.53 | 0.59 | 2.82 | 5.16E-03 | 2.56E-02 | up CINSARC High vs. Low |
| PCDH11X | protocadherin 11 X-linked | Xq21.31 | 27328 | 0.90 | 1.49 | 0.59 | 2.82 | 5.18E-03 | 2.57E-02 | up CINSARC High vs. Low |
| SPRR3 | small proline rich protein 3 | 1q21.3 | 6707 | 0.56 | 1.21 | 0.65 | 2.81 | 5.31E-03 | 2.61E-02 | up CINSARC High vs. Low |
| ALDH3B2 | aldehyde dehydrogenase 3 | 11q13.2 | 222 | 9.67 | 10.39 | 0.72 | 2.81 | 5.36E-03 | 2.63E-02 | up CINSARC High vs. Low |
| CBLN1 | cerebellin 1 precursor | 16q12.1 | 869 | 2.31 | 2.98 | 0.67 | 2.80 | 5.37E-03 | 2.63E-02 | up CINSARC High vs. Low |
| POF1B | POF1B actin binding protei | Xq21.1 | 79983 | 4.51 | 5.50 | 0.99 | 2.80 | 5.40E-03 | 2.64E-02 | up CINSARC High vs. Low |
| FERMT1 | fermitin family member 1 | 20p12.3 | 55612 | 2.81 | 3.43 | 0.62 | 2.77 | 5.88E-03 | 2.81E-02 | up CINSARC High vs. Low |
| FCRL3 | Fc receptor like 3 | 1q23.1 | 115352 | 2.39 | 2.99 | 0.60 | 2.75 | 6.37E-03 | 2.97E-02 | up CINSARC High vs. Low |
| AOX1 | aldehyde oxidase 1 | 2q33.1 | 316 | 6.08 | 6.67 | 0.59 | 2.74 | 6.44E-03 | 3.00E-02 | up CINSARC High vs. Low |
| NMNA2 | nicotinamide nucleotide ad | 1q25.3 | 23057 | 4.46 | 5.13 | 0.67 | 2.74 | 6.48E-03 | 3.01E-02 | up CINSARC High vs. Low |
| KIAA0319 | KIAA0319 | 6p22.3 | 9856 | 3.63 | 4.36 | 0.74 | 2.73 | 6.63E-03 | 3.05E-02 | up CINSARC High vs. Low |
| RSPO4 | R-spondin 4 | 20p13 | 343637 | 1.89 | 2.49 | 0.59 | 2.73 | 6.70E-03 | 3.07E-02 | up CINSARC High vs. Low |
| FRAS1 | Fraser extracellular matrix | 4q21.21 | 80144 | 5.64 | 6.28 | 0.63 | 2.73 | 6.70E-03 | 3.07E-02 | up CINSARC High vs. Low |
| TMEM108 | transmembrane protein 10 | 3q22.1 | 66000 | 4.34 | 4.94 | 0.60 | 2.73 | 6.71E-03 | 3.07E-02 | up CINSARC High vs. Low |
| ACTN2 | actinin alpha 2 | 1q43 | 88 | 1.90 | 2.68 | 0.78 | 2.70 | 7.23E-03 | 3.25E-02 | up CINSARC High vs. Low |
| ELFN2 | extracellular leucine rich r | 22q13.1 | 114794 | 2.88 | 3.64 | 0.76 | 2.70 | 7.30E-03 | 3.27E-02 | up CINSARC High vs. Low |
| AOC1 | amine oxidase copper cont | 7q36.1 | 26 | 3.06 | 3.80 | 0.74 | 2.70 | 7.42E-03 | 3.31E-02 | up CINSARC High vs. Low |
| GJB3 | gap junction protein beta 3 | 1p34.3 | 2707 | 2.29 | 2.88 | 0.59 | 2.68 | 7.71E-03 | 3.40E-02 | up CINSARC High vs. Low |
| CYP4F3 | cytochrome P450 family 4 | 19p13.12 | 4051 | 2.02 | 2.68 | 0.66 | 2.68 | 7.72E-03 | 3.40E-02 | up CINSARC High vs. Low |
| GAGE2D | G antigen 2D | Xp11.23 | 729408 | 0.19 | 0.81 | 0.63 | 2.68 | 7.75E-03 | 3.41E-02 | up CINSARC High vs. Low |
| FDSP | follicular dendritic cell secr | 4q13.3/q413 | 260436 | 1.65 | 2.41 | 0.76 | 2.66 | 8.22E-03 | 3.54E-02 | up CINSARC High vs. Low |
| EREG | epiregulin | 4q13.3 | 2069 | 1.53 | 2.17 | 0.64 | 2.66 | 8.35E-03 | 3.58E-02 | up CINSARC High vs. Low |
| PLAC4 | placenta enriched 4 | 21q22.2 | 191585 | 1.86 | 2.53 | 0.66 | 2.65 | 8.37E-03 | 3.58E-02 | up CINSARC High vs. Low |
| PALM3 | paralemnin 3 | 19p13.12 | 342979 | 4.22 | 4.83 | 0.61 | 2.65 | 8.57E-03 | 3.64E-02 | up CINSARC High vs. Low |
| DSC3 | desmocollin 3 | 18q12.1 | 1825 | 4.19 | 4.93 | 0.75 | 2.63 | 8.89E-03 | 3.73E-02 | up CINSARC High vs. Low |
| HOXC10 | homeobox C10 | 12q13.13 | 3226 | 7.48 | 8.47 | 0.99 | 2.63 | 8.96E-03 | 3.75E-02 | up CINSARC High vs. Low |
| FOLR1 | folate receptor 1 | 11q13.4 | 2348 | 2.63 | 3.43 | 0.79 | 2.63 | 8.99E-03 | 3.76E-02 | up CINSARC High vs. Low |
| MGAT5B | alpha-1,6-mannosylglycopi | 17q25.2 | 146664 | 3.27 | 3.99 | 0.72 | 2.60 | 9.78E-03 | 3.99E-02 | up CINSARC High vs. Low |
| COCH | cochlin | 14q12 | 1690 | 4.07 | 4.86 | 0.79 | 2.60 | 9.83E-03 | 4.00E-02 | up CINSARC High vs. Low |
| SLC5A12 | solute carrier family 5 mem | 11p14.2 | 159963 | 1.05 | 1.70 | 0.64 | 2.59 | 1.00E-02 | 4.05E-02 | up CINSARC High vs. Low |
| BAMBI | BMP and activin membran | 10p12.1 | 25805 | 8.85 | 9.53 | 0.69 | 2.58 | 1.05E-02 | 4.18E-02 | up CINSARC High vs. Low |
| RIMS1 | regulating synaptic membr | 6q13 | 22999 | 4.09 | 4.85 | 0.76 | 2.57 | 1.06E-02 | 4.20E-02 | up CINSARC High vs. Low |
| SLC6A11 | solute carrier family 6 mem | 3p25.3 | 6538 | 1.53 | 2.24 | 0.71 | 2.57 | 1.08E-02 | 4.25E-02 | up CINSARC High vs. Low |
| BEND7 | BEN domain containing 7 | 10p13 | 222389 | 5.99 | 6.58 | 0.59 | 2.57 | 1.08E-02 | 4.26E-02 | up CINSARC High vs. Low |
| SIX1 | SIX homeobox 1 | 14q23.1 | 6495 | 7.71 | 8.46 | 0.75 | 2.53 | 1.18E-02 | 4.50E-02 | up CINSARC High vs. Low |
| AQP9 | aquaporin 9 | 15q21.3 | 366 | 4.53 | 5.14 | 0.61 | 2.52 | 1.21E-02 | 4.59E-02 | up CINSARC High vs. Low |
| ATP6VOA4 | ATPase H+ transporting Vt | 7q34 | 50617 | 3.42 | 4.29 | 0.87 | 2.52 | 1.22E-02 | 4.59E-02 | up CINSARC High vs. Low |
| GABRP | gamma-aminobutyric acid I | 5q35.1 | 2568 | 4.76 | 5.55 | 0.79 | 2.52 | 1.23E-02 | 4.63E-02 | up CINSARC High vs. Low |
| LY6K | lymphocyte antigen 6 famil | 8q24.3 | 54742 | 4.41 | 5.13 | 0.72 | 2.50 | 1.28E-02 | 4.73E-02 | up CINSARC High vs. Low |
| TRPA1 | transient receptor potential | 8q21.11 | 8989 | 3.94 | 4.98 | 1.04 | 2.50 | 1.31E-02 | 4.79E-02 | up CINSARC High vs. Low |
| JCHAIN | joining chain of multimeric | 4q13.3 | 3512 | 8.28 | 9.05 | 0.77 | 2.50 | 1.31E-02 | 4.80E-02 | up CINSARC High vs. Low |
| PTPRZ1 | protein tyrosine phosphata | 7q31.32 | 5803 | 1.70 | 2.31 | 0.61 | 2.49 | 1.31E-02 | 4.81E-02 | up CINSARC High vs. Low |
| MAGEA6 | MAGE family member A6 | Xq28 | 4105 | 0.96 | 1.85 | 0.90 | 2.49 | 1.33E-02 | 4.84E-02 | up CINSARC High vs. Low |
| PRSS1 | serine protease 1 | 7q34 | 5644 | 1.02 | 1.76 | 0.74 | 2.49 | 1.34E-02 | 4.86E-02 | up CINSARC High vs. Low |
| ZNF492 | zinc finger protein 492 | 19p12 | 57615 | 2.40 | 3.00 | 0.59 | 2.49 | 1.34E-02 | 4.86E-02 | up CINSARC High vs. Low |
| TSPYL5 | TSPY like 5 | 8q22.1 | 85453 | 8.32 | 8.92 | 0.60 | 2.47 | 1.40E-02 | 0.050 | up CINSARC High vs. Low |
| VSTM2A | V-set and transmembrane | 7p11.2 | 222008 | 3.46 | 4.74 | 1.29 | 2.47 | 1.41E-02 | 0.050 | up CINSARC High vs. Low |
| PKIA | cAMP-dependent protein k | 8q21.13 | 5569 | 4.37 | 4.97 | 0.60 | 2.45 | 1.49E-02 | 0.052 | up CINSARC High vs. Low |
| SLC6A14 | solute carrier family 6 mem | Xq23 | 11254 | 1.98 | 2.57 | 0.59 | 2.45 | 1.49E-02 | 0.052 | up CINSARC High vs. Low |
| MAGEA3 | MAGE family member A3 | Xq28 | 4102 | 0.93 | 1.79 | 0.86 | 2.45 | 1.50E-02 | 0.053 | up CINSARC High vs. Low |
| CDK5R2 | cyclin dependent kinase 5 | 2q35 | 8941 | 0.90 | 1.51 | 0.61 | 2.43 | 1.59E-02 | 0.055 | up CINSARC High vs. Low |
| PAX2 | paired box 2 | 10q24.31 | 5076 | 3.49 | 4.22 | 0.74 | 2.42 | 1.63E-02 | 0.055 | up CINSARC High vs. Low |
| TRIM36 | tripartite motif containing 3 | 5q22.3 | 55521 | 6.91 | 7.53 | 0.62 | 2.41 | 1.63E-02 | 0.056 | up CINSARC High vs. Low |
| SPTSSB | serine palmitoyltransferase | 3q26.1 | 165679 | 7.03 | 7.82 | 0.79 | 2.41 | 1.67E-02 | 0.057 | up CINSARC High vs. Low |
| CACNG6 | calcium voltage-gated chai | 19q13.42 | 59285 | 1.64 | 2.47 | 0.82 | 2.40 | 1.68E-02 | 0.057 | up CINSARC High vs. Low |
| MKRN3 | makorin ring finger protein | 15q11.2 | 7681 | 2.02 | 2.71 | 0.69 | 2.39 | 1.73E-02 | 0.058 | up CINSARC High vs. Low |
| GLYATL3 | glycine-N-acyltransferase I | 6p12.3 | 389396 | 0.52 | 1.11 | 0.59 | 2.38 | 1.79E-02 | 0.059 | up CINSARC High vs. Low |
| CELF3 | CUGBP Elav-like family mc | 1q21.3 | 11189 | 1.79 | 2.44 | 0.66 | 2.38 | 1.79E-02 | 0.059 | up CINSARC High vs. Low |
| DQX1 | DEAQ-box RNA dependen | 2p13.1 | 165545 | 4.08 | 4.72 | 0.63 | 2.37 | 1.83E-02 | 0.060 | up CINSARC High vs. Low |
| LRAT | lecithin retinol acyltransfer | 4q32.1 | 9227 | 3.08 | 3.76 | 0.68 | 2.36 | 1.91E-02 | 0.061 | up CINSARC High vs. Low |
| DPYSL5 | dihydropyrimidinase like 5 | 2p23.3 | 56896 | 1.03 | 1.66 | 0.63 | 2.35 | 1.93E-02 | 0.062 | up CINSARC High vs. Low |
| ASIC2 | acid sensing ion channel s | 17q11.2-q12 | 40 | 2.14 | 2.88 | 0.74 | 2.35 | 1.94E-02 | 0.062 | up CINSARC High vs. Low |
| RASAL1 | RAS protein activator like 1 | 12q24.13 | 8437 | 2.83 | 3.43 | 0.60 | 2.34 | 1.97E-02 | 0.063 | up CINSARC High vs. Low |
| KCNK3 | potassium two pore domai | 2p23.3 | 3777 | 3.94 | 4.69 | 0.75 | 2.34 | 2.00E-02 | 0.063 | up CINSARC High vs. Low |
| BRINP3 | BMP/retinoic acid inducible | 1q31.1 | 339479 | 0.97 | 1.80 | 0.83 | 2.33 | 2.04E-02 | 0.064 | up CINSARC High vs. Low |
| PCSK2 | proprotein convertase subf | 20p12.1 | 5126 | 1.18 | 1.95 | 0.77 | 2.32 | 2.08E-02 | 0.065 | up CINSARC High vs. Low |
| SERPINA5 | serpin family A member 5 | 14q32.13 | 5104 | 9.36 | 10.13 | 0.76 | 2.31 | 2.14E-02 | 0.066</ | |

| Symbol | description | Cytoband | Entrez Gene ID | Low-risk (mean, log2) | High-risk (mean, log2) | High vs.Low (log2-ratio) | t | p-value | q-value | Associated to |
|----------|---|--------------|----------------|-----------------------|------------------------|--------------------------|-------|----------|----------|---------------------------|
| TMEM150C | transmembrane protein 15i | 4q21.22 | 441027 | 8.09 | 8.83 | 0.74 | 2.27 | 2.42E-02 | 0.071 | up CINSARC High vs. Low |
| B3GNT3 | UDP-GlcNAc:betaGal beta | 19p13.11 | 10331 | 3.46 | 4.06 | 0.60 | 2.26 | 2.48E-02 | 0.072 | up CINSARC High vs. Low |
| DSG3 | desmoglein 3 | 18q12.1 | 1830 | 3.18 | 3.86 | 0.68 | 2.25 | 2.51E-02 | 0.073 | up CINSARC High vs. Low |
| CXCL9 | C-X-C motif chemokine ligand 9 | 4q21.1 | 4283 | 8.58 | 9.20 | 0.62 | 2.24 | 2.60E-02 | 0.074 | up CINSARC High vs. Low |
| HOXC11 | homeobox C11 | 12q13.13 | 3227 | 4.81 | 5.62 | 0.81 | 2.19 | 2.90E-02 | 0.080 | up CINSARC High vs. Low |
| CCL21 | C-C motif chemokine ligand 21 | 9p13.3 | 6366 | 4.47 | 5.12 | 0.65 | 2.19 | 2.92E-02 | 0.080 | up CINSARC High vs. Low |
| MAGEA12 | MAGE family member A12 | Xq28 | 4111 | 0.69 | 1.30 | 0.61 | 2.16 | 3.13E-02 | 0.083 | up CINSARC High vs. Low |
| BPIFB1 | BPI fold containing family E member 1 | 20q11.21 | 92747 | 6.73 | 7.42 | 0.69 | 2.16 | 3.14E-02 | 0.084 | up CINSARC High vs. Low |
| SLC4A10 | solute carrier family 4 member 10 | 2q24.2 | 57282 | 2.28 | 3.01 | 0.72 | 2.15 | 3.20E-02 | 0.085 | up CINSARC High vs. Low |
| LEP | leptin | 7q32.1 | 3952 | 2.67 | 3.31 | 0.64 | 2.15 | 3.26E-02 | 0.086 | up CINSARC High vs. Low |
| ADGRV1 | adhesion G protein-coupled receptor 1 | 5q14.3 | 84059 | 7.31 | 8.00 | 0.69 | 2.13 | 3.43E-02 | 0.088 | up CINSARC High vs. Low |
| ZIC2 | Zic family member 2 | 13q32.3 | 7546 | 3.15 | 3.87 | 0.72 | 2.12 | 3.48E-02 | 0.089 | up CINSARC High vs. Low |
| PLA2G2D | phospholipase A2 group III | 1p36.12 | 26279 | 3.45 | 4.06 | 0.61 | 2.11 | 3.60E-02 | 0.091 | up CINSARC High vs. Low |
| MUCL1 | mucin like 1 | 12q13.2 | 118430 | 5.19 | 6.03 | 0.84 | 2.10 | 3.66E-02 | 0.092 | up CINSARC High vs. Low |
| KRT6B | keratin 6B | 12q13.13 | 3854 | 3.97 | 4.70 | 0.73 | 2.08 | 3.79E-02 | 0.094 | up CINSARC High vs. Low |
| ALOX15 | arachidonate 15-lipoxygenase | 17p13.2 | 246 | 3.70 | 4.32 | 0.62 | 2.06 | 4.05E-02 | 0.098 | up CINSARC High vs. Low |
| OLFM4 | olfactomedin 4 | 13q14.3 | 10562 | 2.74 | 3.47 | 0.73 | 2.05 | 4.12E-02 | 0.099 | up CINSARC High vs. Low |
| GRPR | gastrin releasing peptide receptor | Xp22.2 | 2925 | 7.32 | 6.62 | -0.70 | -2.04 | 4.20E-02 | 0.100 | down CINSARC High vs. Low |
| SLC7A2 | solute carrier family 7 member 2 | 8p22 | 6542 | 11.97 | 11.32 | -0.65 | -2.06 | 4.04E-02 | 0.097 | down CINSARC High vs. Low |
| CST9 | cystatin 9 | 20p11.21 | 128822 | 5.59 | 4.69 | -0.90 | -2.06 | 4.02E-02 | 0.097 | down CINSARC High vs. Low |
| INSYNA | inhibitory synaptic factor 2 | 10q26.2 | 642938 | 6.62 | 5.87 | -0.75 | -2.07 | 3.95E-02 | 0.096 | down CINSARC High vs. Low |
| RG22 | regulator of G protein signaling 22 | 8q22.2 | 26166 | 6.53 | 5.92 | -0.60 | -2.07 | 3.91E-02 | 0.095 | down CINSARC High vs. Low |
| FOX11 | forkhead box O11 | 5q35.1 | 2299 | 5.47 | 4.60 | -0.86 | -2.09 | 3.73E-02 | 0.093 | down CINSARC High vs. Low |
| ANKRD30A | ankyrin repeat domain 30A | 10p11.21 | 91074 | 8.34 | 7.36 | -0.98 | -2.09 | 3.71E-02 | 0.092 | down CINSARC High vs. Low |
| TNNI3 | troponin I3, cardiac type | 19q13.42 | 7137 | 3.14 | 2.48 | -0.66 | -2.10 | 3.63E-02 | 0.091 | down CINSARC High vs. Low |
| CITED1 | Cbp/p300 interacting transcription factor 1 | Xq13.1 | 4435 | 4.72 | 4.10 | -0.61 | -2.13 | 3.38E-02 | 0.087 | down CINSARC High vs. Low |
| PDZK1IP1 | PDZK1 interacting protein 1 | 1p33 | 10158 | 7.23 | 6.52 | -0.71 | -2.14 | 3.32E-02 | 0.086 | down CINSARC High vs. Low |
| KRT15 | keratin 15 | 17q21.2 | 3866 | 8.56 | 7.89 | -0.67 | -2.17 | 3.05E-02 | 0.082 | down CINSARC High vs. Low |
| SYT13 | synaptotagmin 13 | 11p11.2 | 57586 | 9.36 | 8.38 | -0.98 | -2.20 | 2.85E-02 | 0.079 | down CINSARC High vs. Low |
| WFDC2 | WAP four-disulfide core domain 2 | 20q13.12 | 10406 | 9.53 | 8.69 | -0.84 | -2.22 | 2.72E-02 | 0.076 | down CINSARC High vs. Low |
| TMEM145 | transmembrane protein 145 | 19q13.2 | 284339 | 5.73 | 5.13 | -0.60 | -2.23 | 2.67E-02 | 0.076 | down CINSARC High vs. Low |
| ORM1 | orosomucoid 1 | 9q32 | 5004 | 3.43 | 2.67 | -0.76 | -2.23 | 2.64E-02 | 0.075 | down CINSARC High vs. Low |
| AGTR1 | angiotensin II receptor type 1 | 3q24 | 185 | 7.59 | 6.75 | -0.84 | -2.23 | 2.63E-02 | 0.075 | down CINSARC High vs. Low |
| MUC1 | mucin 1, cell surface associated | 1q22 | 4582 | 12.88 | 12.29 | -0.59 | -2.26 | 2.43E-02 | 0.071 | down CINSARC High vs. Low |
| IGSF21 | immunoglobulin superfamily member 21 | 1p36.13 | 84966 | 6.59 | 5.97 | -0.63 | -2.27 | 2.39E-02 | 0.071 | down CINSARC High vs. Low |
| CCNO | cyclin O | 5q11.2 | 10309 | 6.65 | 5.85 | -0.80 | -2.28 | 2.35E-02 | 0.070 | down CINSARC High vs. Low |
| ORM2 | orosomucoid 2 | 9q32 | 5005 | 2.41 | 1.76 | -0.65 | -2.28 | 2.32E-02 | 0.069 | down CINSARC High vs. Low |
| SP5 | Sp5 transcription factor | 2q31.1 | 389058 | 3.73 | 3.10 | -0.63 | -2.30 | 2.23E-02 | 0.067 | down CINSARC High vs. Low |
| DLX2 | distal-less homeobox 2 | 2q31.1 | 1746 | 3.32 | 2.63 | -0.70 | -2.30 | 2.21E-02 | 0.067 | down CINSARC High vs. Low |
| SEZ6L | seizure related 6 homolog | 22q12.1 | 23544 | 4.29 | 3.44 | -0.85 | -2.32 | 2.13E-02 | 0.066 | down CINSARC High vs. Low |
| COL4A6 | collagen type IV alpha 6 chain | Xq22.3 | 1288 | 5.23 | 4.56 | -0.66 | -2.32 | 2.11E-02 | 0.065 | down CINSARC High vs. Low |
| CCDC196 | coiled-coil domain containing 196 | 14q23.3 | 440184 | 2.47 | 1.85 | -0.62 | -2.33 | 2.07E-02 | 0.065 | down CINSARC High vs. Low |
| KCNE4 | potassium voltage-gated channel accessory protein 4 | 2q36.1 | 23704 | 9.70 | 9.05 | -0.65 | -2.34 | 1.98E-02 | 0.063 | down CINSARC High vs. Low |
| NDP | norrin cystine knot growth factor 1 | Xp11.3 | 4693 | 4.74 | 3.90 | -0.84 | -2.34 | 1.97E-02 | 0.063 | down CINSARC High vs. Low |
| SLC7A4 | solute carrier family 7 member 4 | 22q11.21 | 6545 | 4.24 | 3.34 | -0.90 | -2.35 | 1.93E-02 | 0.062 | down CINSARC High vs. Low |
| DOK7 | docking protein 7 | 4p16.3 | 285489 | 7.27 | 6.65 | -0.61 | -2.36 | 1.87E-02 | 0.061 | down CINSARC High vs. Low |
| ATPIA4 | ATPase Na+/K+ transporting protein 4 | 1q23.2 | 480 | 4.27 | 3.68 | -0.60 | -2.38 | 1.78E-02 | 0.059 | down CINSARC High vs. Low |
| PHGR1 | proline, histidine and glycine-rich protein 1 | 15q15.1 | 644844 | 3.44 | 2.68 | -0.75 | -2.40 | 1.71E-02 | 0.058 | down CINSARC High vs. Low |
| CYP2A7 | cytochrome P450 family 2 member A7 | 19q13.2 | 1549 | 3.07 | 2.16 | -0.90 | -2.40 | 1.71E-02 | 0.058 | down CINSARC High vs. Low |
| MYO3B | myosin IIB | 2q31.1 | 140469 | 3.21 | 2.49 | -0.72 | -2.44 | 1.54E-02 | 0.054 | down CINSARC High vs. Low |
| GRIA2 | glutamate ionotropic receptor NR2B subunit 2 | 4q32.1 | 2891 | 5.40 | 4.21 | -1.20 | -2.45 | 1.47E-02 | 0.052 | down CINSARC High vs. Low |
| CARTPT | CART prepropeptide | 5q13.2 | 9607 | 2.21 | 1.20 | -1.01 | -2.46 | 1.44E-02 | 0.051 | down CINSARC High vs. Low |
| RHBDL3 | rhomoid like 3 | 17q11.2 | 162494 | 4.57 | 3.93 | -0.64 | -2.48 | 1.37E-02 | 4.94E-02 | down CINSARC High vs. Low |
| TPSG1 | trypsinogen gamma 1 | 16p13.3 | 25823 | 4.84 | 4.09 | -0.75 | -2.50 | 1.31E-02 | 4.80E-02 | down CINSARC High vs. Low |
| C19orf33 | chromosome 19 open reading frame 33 | 19q13.2 | 64073 | 8.17 | 7.44 | -0.73 | -2.52 | 1.22E-02 | 4.60E-02 | down CINSARC High vs. Low |
| MPPED1 | metallophosphoesterase domain containing 1 | 22q13.2 | 758 | 2.15 | 1.49 | -0.66 | -2.55 | 1.12E-02 | 4.37E-02 | down CINSARC High vs. Low |
| CFAP221 | cilia and flagella associated protein 221 | 2q14.2 | 200373 | 3.14 | 2.46 | -0.67 | -2.56 | 1.11E-02 | 4.33E-02 | down CINSARC High vs. Low |
| CHRD | chordin | 3q27.1 | 8646 | 8.51 | 7.92 | -0.59 | -2.57 | 1.06E-02 | 4.21E-02 | down CINSARC High vs. Low |
| TUBA3D | tubulin alpha 3D | 2q21.1 | 113457 | 5.81 | 4.98 | -0.83 | -2.60 | 9.72E-03 | 3.97E-02 | down CINSARC High vs. Low |
| FGF10 | fibroblast growth factor 10 | 5p12 | 2255 | 3.66 | 2.77 | -0.89 | -2.60 | 9.72E-03 | 3.97E-02 | down CINSARC High vs. Low |
| ZNF385D | zinc finger protein 385D | 3p24.3 | 79750 | 4.61 | 3.98 | -0.63 | -2.62 | 9.13E-03 | 3.80E-02 | down CINSARC High vs. Low |
| GJA1 | gap junction protein alpha 1 | 6q22.31 | 2697 | 12.20 | 11.58 | -0.62 | -2.68 | 7.79E-03 | 3.42E-02 | down CINSARC High vs. Low |
| CDHR4 | cadherin related family member 4 | 3p21.31 | 389118 | 2.12 | 1.47 | -0.65 | -2.68 | 7.69E-03 | 3.39E-02 | down CINSARC High vs. Low |
| PPP1R36 | protein phosphatase 1 regulatory subunit 36 | 14q23.3 | 145376 | 4.44 | 3.84 | -0.59 | -2.69 | 7.59E-03 | 3.36E-02 | down CINSARC High vs. Low |
| PHYHD1 | phytyl-CoA dioxygenase 1 | 9q34.11 | 254295 | 7.70 | 7.00 | -0.70 | -2.70 | 7.35E-03 | 3.28E-02 | down CINSARC High vs. Low |
| KLHL1 | kelch like family member 1 | 13q21.33 | 57626 | 1.40 | 0.64 | -0.76 | -2.71 | 7.14E-03 | 3.22E-02 | down CINSARC High vs. Low |
| CLIC6 | chloride intracellular channel protein 6 | 21q22.12 | 54102 | 8.94 | 7.82 | -1.12 | -2.73 | 6.78E-03 | 3.10E-02 | down CINSARC High vs. Low |
| TTCC2 | tetratricopeptide repeat domain containing 2 | 1p32.3 | 55001 | 4.45 | 3.72 | -0.73 | -2.74 | 6.58E-03 | 3.04E-02 | down CINSARC High vs. Low |
| CFB | complement factor B | 6p21.33 | 629 | 12.82 | 12.02 | -0.80 | -2.74 | 6.52E-03 | 3.02E-02 | down CINSARC High vs. Low |
| DMKN | dermokine | 19q13.12 | 93099 | 7.49 | 6.80 | -0.68 | -2.75 | 6.31E-03 | 2.96E-02 | down CINSARC High vs. Low |
| SEC14L5 | SEC14 like lipid binding domain containing 5 | 16p13.3 | 9717 | 3.41 | 2.79 | -0.62 | -2.76 | 6.14E-03 | 2.90E-02 | down CINSARC High vs. Low |
| NAT1 | N-acetyltransferase 1 | 8p22 | 9 | 11.23 | 10.52 | -0.71 | -2.80 | 5.46E-03 | 2.65E-02 | down CINSARC High vs. Low |
| STC2 | stanniocalcin 2 | 5q35.2 | 8614 | 12.84 | 12.05 | -0.79 | -2.80 | 5.41E-03 | 2.64E-02 | down CINSARC High vs. Low |
| C5orf38 | chromosome 5 open reading frame 38 | 5p15.33 | 153571 | 6.08 | 5.41 | -0.67 | -2.80 | 5.41E-03 | 2.64E-02 | down CINSARC High vs. Low |
| SKIDA1 | SKI/DACH domain containing 1 | 10p12.31 | 387640 | 4.25 | 3.64 | -0.61 | -2.81 | 5.32E-03 | 2.62E-02 | down CINSARC High vs. Low |
| SYT12 | synaptotagmin 12 | 11q13.2 | 91683 | 8.95 | 8.32 | -0.63 | -2.82 | 5.16E-03 | 2.56E-02 | down CINSARC High vs. Low |
| CDSN | corneodesmosin | 6p21.33 | 1041 | 6.01 | 5.21 | -0.80 | -2.82 | 5.15E-03 | 2.56E-02 | down CINSARC High vs. Low |
| CHI3L2 | chitinase 3 like 2 | 1p13.2 | 1117 | 6.57 | 5.78 | -0.79 | -2.84 | 4.80E-03 | 2.45E-02 | down CINSARC High vs. Low |
| GALNT5 | polypeptide N-acetylgalactosaminyltransferase 5 | 2q24.1 | 11227 | 6.98 | 6.29 | -0.69 | -2.85 | 4.73E-03 | 2.43E-02 | down CINSARC High vs. Low |
| CST5 | cystatin D | 20p11.21 | 1473 | 4.15 | 2.93 | -1.22 | -2.87 | 4.41E-03 | 2.32E-02 | down CINSARC High vs. Low |
| CCDC65 | coiled-coil domain containing 65 | 12q13.12 | 85478 | 4.25 | 3.62 | -0.63 | -2.88 | 4.28E-03 | 2.27E-02 | down CINSARC High vs. Low |
| ENTPD8 | ectonucleoside triphosphatase 8 | 9q34.3 | 377841 | 5.90 | 5.22 | -0.68 | -2.88 | 4.27E-03 | 2.27E-02 | down CINSARC High vs. Low |
| RANBP3L | RAN binding protein 3 like | 5p13.2 | 202151 | 5.28 | 4.54 | -0.74 | -2.88 | 4.26E-03 | 2.27E-02 | down CINSARC High vs. Low |
| P2RY11 | purinergic receptor P2Y11 | 19p13.2 | 5032 | 6.26 | 5.45 | -0.81 | -2.90 | 4.04E-03 | 2.19E-02 | down CINSARC High vs. Low |
| CHST8 | carbohydrate sulfotransferase 8 | 19q13.11 | 64377 | 6.87 | 5.87 | -1.00 | -2.93 | 3.70E-03 | 2.08E-02 | down CINSARC High vs. Low |
| PGR | progesterone receptor | 11q22.1 | 5241 | 10.63 | 9.62 | -1.01 | -2.93 | 3.62E-03 | 2.05E-02 | down CINSARC High vs. Low |
| ACSM1 | acyl-CoA synthetase medium chain | 16p12.3 | 116285 | 5.00 | 4.41 | -0.59 | -2.98 | 3.16E-03 | 1.86E-02 | down CINSARC High vs. Low |
| CA14 | carbonic anhydrase 14 | 1q21.2 | 23632 | 4.40 | 3.80 | -0.60 | -2.99 | 3.01E-03 | 1.80E-02 | down CINSARC High vs. Low |
| SPTBN4 | spectrin beta, non-erythrocytic 4 | 19q13.2 | 57731 | 6.37 | 5.76 | -0.61 | -3.01 | 2.83E-03 | 1.73E-02 | down CINSARC High vs. Low |
| RAB38 | RAB38, member RAS oncogene family | 11q14.2 | 23682 | 7.07 | 6.29 | -0.78 | -3.01 | 2.79E-03 | 1.72E-02 | down CINSARC High vs. Low |
| SERPINA6 | serpin family A member 6 | 14q32.13 | 866 | 6.19 | 4.60 | -1.59 | -3.02 | 2.76E-03 | 1.70E-02 | down CINSARC High vs. Low |
| SEC14L2 | SEC14 like lipid binding domain containing 2 | 22q12.2 | 23541 | 10.14 | 9.45 | -0.69 | -3.04 | 2.54E-03 | 1.62E-02 | down CINSARC High vs. Low |
| TDRD1 | tudor domain containing 1 | 10q25.3 | 56165 | 2.84 | 1.94 | -0.90 | -3.10 | 2.14E-03 | 1.45E-02 | down CINSARC High vs. Low |
| CLDN1 | claudin 1 | 3q28 | 9076 | 7.64 | 7.04 | -0.61 | -3.10 | 2.13E-03 | 1.44E-02 | down CINSARC High vs. Low |
| FBXO2 | F-box protein 2 | 1p36.22 | 26232 | 7.70 | 6.97 | -0.73 | -3.10 | 2.12E-03 | 1.44E-02 | down CINSARC High vs. Low |
| LACRT | lacritin | 12q13.2 | 90070 | 1.10 | 0.36 | -0.74 | -3.10 | 2.11E-03 | 1.44E-02 | down CINSARC High vs. Low |
| MPV17L | MPV17 mitochondrial inner membrane protein 17L | 16p13.11 | 255027 | 7.87 | 7.15 | -0.73 | -3.13 | 1.92E-03 | 1.35E-02 | down CINSARC High vs. Low |
| MYBPC1 | myosin binding protein C, cardiac | 12q23.2 | 4604 | 3.84 | 2.61 | -1.23 | -3.17 | 1.67E-03 | 1.22E-02 | down CINSARC High vs. Low |
| TMPRSS6 | transmembrane serine protease 6 | 22q12.3 | 164656 | 7.10 | 6.17 | -0.92 | -3.18 | 1.60E-03 | 1.19E-02 | down CINSARC High vs. Low |
| NEK10 | NIMA related kinase 10 | 3p24.1 | 152110 | 6.88 | 5.96 | -0.91 | -3.21 | 1.46E-03 | 1.11E-02 | down CINSARC High vs. Low |
| ZNF385B | zinc finger protein 385B | 2q31.2-q31.3 | 151126 | 6.91 | 4.78 | -1.13 | -3.28 | 1.15E-03 | 9.46E-03 | down CINSARC High vs. Low |
| REEP6 | re | | | | | | | | | |

| Symbol | description | Cytoband | Entrez Gene ID | Low-risk (mean_log2) | High-risk (mean_log2) | High vs.Low (log2-ratio) | t | p-value | q-value | Associated to |
|---------------------|-------------------------------|----------------|----------------|----------------------|-----------------------|--------------------------|-------|----------|----------|---------------------------|
| <i>NXNL2</i> | nucleoredoxin like 2 | 9q22.1 | 158046 | 4.63 | 3.92 | -0.71 | -3.35 | 8.98E-04 | 7.91E-03 | down CINSARC High vs. Low |
| <i>PIP</i> | prolactin induced protein | 7q34 | 5304 | 9.20 | 7.56 | -1.63 | -3.35 | 8.97E-04 | 7.91E-03 | down CINSARC High vs. Low |
| <i>ADCY1</i> | adenylate cyclase 1 | 7p12.3 | 107 | 10.17 | 9.29 | -0.88 | -3.37 | 8.44E-04 | 7.55E-03 | down CINSARC High vs. Low |
| <i>GSTM2</i> | glutathione S-transferase r | 1p13.3 | 2946 | 9.37 | 8.60 | -0.77 | -3.41 | 7.44E-04 | 6.89E-03 | down CINSARC High vs. Low |
| <i>GAD1</i> | glutamate decarboxylase 1 | 2q31.1 | 2571 | 3.32 | 2.31 | -1.01 | -3.44 | 6.68E-04 | 6.37E-03 | down CINSARC High vs. Low |
| <i>SEMA3B</i> | semaphorin 3B | 3p21.31 | 7869 | 9.17 | 8.45 | -0.72 | -3.45 | 6.43E-04 | 6.17E-03 | down CINSARC High vs. Low |
| <i>KCNQ3</i> | potassium voltage-gated ci | 1p13.2 | 3752 | 5.85 | 4.94 | -0.90 | -3.49 | 5.65E-04 | 5.61E-03 | down CINSARC High vs. Low |
| <i>LINC00173</i> | long intergenic non-protein | 12q24.22 | 100287569 | 4.74 | 4.03 | -0.71 | -3.49 | 5.51E-04 | 5.54E-03 | down CINSARC High vs. Low |
| <i>JHY</i> | junctional cadherin comple | 11q24.1 | 79864 | 7.04 | 6.42 | -0.62 | -3.50 | 5.34E-04 | 5.41E-03 | down CINSARC High vs. Low |
| <i>RAMP3</i> | receptor activity modifying | 7p13 | 10268 | 8.85 | 8.09 | -0.76 | -3.53 | 4.85E-04 | 5.04E-03 | down CINSARC High vs. Low |
| <i>KRT23</i> | keratin 23 | 17q21.2 | 25984 | 7.68 | 6.55 | -1.13 | -3.53 | 4.76E-04 | 4.98E-03 | down CINSARC High vs. Low |
| <i>PSORS1C1</i> | psoriasis susceptibility 1 ce | 6p21.33 | 170679 | 3.28 | 2.67 | -0.61 | -3.54 | 4.65E-04 | 4.90E-03 | down CINSARC High vs. Low |
| <i>TEKT3</i> | tektin 3 | 17p12 | 64518 | 3.69 | 3.04 | -0.65 | -3.54 | 4.64E-04 | 4.89E-03 | down CINSARC High vs. Low |
| <i>PTPRT</i> | protein tyrosine phosphata | 20q12-q13.11 | 11122 | 9.55 | 8.29 | -1.26 | -3.59 | 3.88E-04 | 4.34E-03 | down CINSARC High vs. Low |
| <i>PPP4R4</i> | protein phosphatase 4 regl | 4q32.12-q32.13 | 57718 | 4.58 | 3.37 | -1.22 | -3.59 | 3.80E-04 | 4.27E-03 | down CINSARC High vs. Low |
| <i>CFAP57</i> | cilia and flagella associater | 1p34.2 | 149465 | 4.09 | 3.44 | -0.65 | -3.60 | 3.72E-04 | 4.22E-03 | down CINSARC High vs. Low |
| <i>EGOT</i> | eosinophil granule ontoger | 3p26.1 | 100126791 | 4.28 | 3.55 | -0.73 | -3.61 | 3.59E-04 | 4.13E-03 | down CINSARC High vs. Low |
| <i>FBXL16</i> | F-box and leucine rich rept | 16p13.3 | 146330 | 9.65 | 8.94 | -0.71 | -3.61 | 3.58E-04 | 4.12E-03 | down CINSARC High vs. Low |
| <i>CLU</i> | clusterin | 8p21.1 | 1191 | 13.35 | 12.74 | -0.61 | -3.62 | 3.45E-04 | 4.03E-03 | down CINSARC High vs. Low |
| <i>ADGRB2</i> | adhesion G protein-couple | 1p35.2 | 576 | 9.38 | 8.69 | -0.69 | -3.62 | 3.42E-04 | 4.00E-03 | down CINSARC High vs. Low |
| <i>LINC00160</i> | long intergenic non-protein | 21q22.12 | 54064 | 3.26 | 2.59 | -0.67 | -3.64 | 3.24E-04 | 3.87E-03 | down CINSARC High vs. Low |
| <i>PGHGG</i> | protein-glucosylgalactosylf | 11p15.5 | 80162 | 9.96 | 9.17 | -0.78 | -3.64 | 3.24E-04 | 3.87E-03 | down CINSARC High vs. Low |
| <i>CCDC153</i> | coiled-coil domain containi | 11q23.3 | 283152 | 4.48 | 3.77 | -0.71 | -3.64 | 3.17E-04 | 3.82E-03 | down CINSARC High vs. Low |
| <i>NTN4</i> | netrin 4 | 12q22 | 59277 | 10.61 | 9.76 | -0.85 | -3.68 | 2.80E-04 | 3.47E-03 | down CINSARC High vs. Low |
| <i>ABAT</i> | 4-aminobutyrate aminotran | 16p13.2 | 18 | 10.66 | 9.99 | -0.67 | -3.68 | 2.74E-04 | 3.41E-03 | down CINSARC High vs. Low |
| <i>PCP2</i> | Purkinje cell protein 2 | 19p13.2 | 126006 | 5.73 | 5.04 | -0.68 | -3.72 | 2.40E-04 | 3.13E-03 | down CINSARC High vs. Low |
| <i>ABLIM3</i> | actin binding LIM protein fa | 5q32 | 22885 | 9.47 | 8.84 | -0.64 | -3.73 | 2.26E-04 | 3.00E-03 | down CINSARC High vs. Low |
| <i>GRIA1</i> | glutamate ionotropic recep | 5q33.2 | 2890 | 3.11 | 1.85 | -1.25 | -3.76 | 2.01E-04 | 2.76E-03 | down CINSARC High vs. Low |
| <i>LOC100128239</i> | uncharacterized LOC1001: | 11q25 | 100128239 | 3.45 | 2.74 | -0.70 | -3.85 | 1.44E-04 | 2.14E-03 | down CINSARC High vs. Low |
| <i>TMEM63C</i> | transmembrane protein 63 | 14q24.3 | 57156 | 9.14 | 8.52 | -0.61 | -3.85 | 1.44E-04 | 2.13E-03 | down CINSARC High vs. Low |
| <i>TSNAN10</i> | tetraspanin 10 | 17q25.3 | 83882 | 5.23 | 4.47 | -0.76 | -3.87 | 1.31E-04 | 1.99E-03 | down CINSARC High vs. Low |
| <i>ARHGGEF37</i> | Rho guanine nucleotide ex | 5q32 | 389337 | 9.25 | 8.66 | -0.59 | -3.89 | 1.24E-04 | 1.91E-03 | down CINSARC High vs. Low |
| <i>RAI2</i> | retinoic acid induced 2 | Xp22.13 | 10742 | 8.76 | 8.01 | -0.75 | -3.90 | 1.20E-04 | 1.85E-03 | down CINSARC High vs. Low |
| <i>TPRG1</i> | tumor protein p63 regulater | 3q28 | 285386 | 9.29 | 8.09 | -1.20 | -3.95 | 9.91E-05 | 1.61E-03 | down CINSARC High vs. Low |
| <i>HPN</i> | hepsin | 19q13.11 | 3249 | 9.95 | 9.28 | -0.67 | -3.96 | 9.56E-05 | 1.57E-03 | down CINSARC High vs. Low |
| <i>CFAP70</i> | cilia and flagella associater | 10q22.2 | 118491 | 6.74 | 6.08 | -0.66 | -3.97 | 8.97E-05 | 1.50E-03 | down CINSARC High vs. Low |
| <i>ACMSD</i> | aminocarboxymuconate se | 2q21.3 | 130013 | 2.93 | 1.74 | -1.19 | -4.02 | 7.27E-05 | 1.28E-03 | down CINSARC High vs. Low |
| <i>IGFALS</i> | insulin like growth factor bi | 16p13.3 | 3483 | 5.90 | 5.01 | -0.90 | -4.04 | 6.81E-05 | 1.21E-03 | down CINSARC High vs. Low |
| <i>GNMT</i> | glycine N-methyltransferase | 6p21.1 | 27232 | 4.91 | 4.07 | -0.85 | -4.05 | 6.50E-05 | 1.18E-03 | down CINSARC High vs. Low |
| <i>ACADS</i> | acyl-CoA dehydrogenase e | 12q24.31 | 35 | 8.30 | 7.68 | -0.62 | -4.06 | 6.16E-05 | 1.13E-03 | down CINSARC High vs. Low |
| <i>EPHX2</i> | epoxide hydrolase 2 | 8p21.2-p21.1 | 2053 | 9.11 | 8.41 | -0.70 | -4.11 | 5.20E-05 | 9.82E-04 | down CINSARC High vs. Low |
| <i>DCDC1</i> | doublecortin domain contai | 11p13 | 341019 | 3.39 | 2.65 | -0.74 | -4.14 | 4.44E-05 | 8.68E-04 | down CINSARC High vs. Low |
| <i>IZUMO4</i> | IZUMO family member 4 | 19p13.3 | 113177 | 4.65 | 4.00 | -0.65 | -4.18 | 3.91E-05 | 7.85E-04 | down CINSARC High vs. Low |
| <i>C17orf107</i> | chromosome 17 open read | 17p13.2 | 100130311 | 6.27 | 5.64 | -0.63 | -4.18 | 3.85E-05 | 7.74E-04 | down CINSARC High vs. Low |
| <i>NOSTRIN</i> | nitric oxide synthase traffi | 2q24.3 | 115677 | 8.83 | 8.14 | -0.69 | -4.21 | 3.35E-05 | 6.91E-04 | down CINSARC High vs. Low |
| <i>ADAMTS13</i> | ADAM metalloproteinase wi | 9q34.2 | 11093 | 6.41 | 5.82 | -0.59 | -4.22 | 3.20E-05 | 6.73E-04 | down CINSARC High vs. Low |
| <i>ZBTB16</i> | zinc finger and BTB domai | 11q23.2 | 7704 | 4.30 | 3.29 | -1.02 | -4.26 | 2.69E-05 | 5.86E-04 | down CINSARC High vs. Low |
| <i>EFCAB6</i> | EF-hand calcium binding d22 | q13.2-q13.31 | 64800 | 5.68 | 5.08 | -0.60 | -4.34 | 1.95E-05 | 4.55E-04 | down CINSARC High vs. Low |
| <i>FCGBP</i> | Fc fragment of IgG binding | 19q13.2 | 8857 | 8.70 | 7.76 | -0.94 | -4.38 | 1.66E-05 | 4.07E-04 | down CINSARC High vs. Low |
| <i>KCNQ3</i> | potassium voltage-gated ci | 8q24.22 | 3786 | 4.18 | 3.43 | -0.75 | -4.40 | 1.48E-05 | 3.75E-04 | down CINSARC High vs. Low |
| <i>RSPH1</i> | radial spoke head compon | 21q22.3 | 89765 | 7.45 | 6.75 | -0.70 | -4.42 | 1.38E-05 | 3.54E-04 | down CINSARC High vs. Low |
| <i>DEGS2</i> | delta 4-desaturase, sphing | 14q32.2 | 123099 | 10.61 | 9.83 | -0.78 | -4.43 | 1.35E-05 | 3.51E-04 | down CINSARC High vs. Low |
| <i>FSCN2</i> | fascin actin-bundling protei | 17q25.3 | 25794 | 4.55 | 3.80 | -0.74 | -4.43 | 1.34E-05 | 3.49E-04 | down CINSARC High vs. Low |
| <i>PLD4</i> | phospholipase D family me | 14q32.33 | 122618 | 6.30 | 5.53 | -0.78 | -4.43 | 1.34E-05 | 3.49E-04 | down CINSARC High vs. Low |
| <i>ZMYND10</i> | zinc finger MYND-type con | 3p21.31 | 51364 | 8.38 | 7.71 | -0.67 | -4.46 | 1.16E-05 | 3.11E-04 | down CINSARC High vs. Low |
| <i>CHRNA2</i> | cholinergic receptor nicotin | 8p21.2 | 1135 | 1.22 | 0.59 | -0.63 | -4.47 | 1.14E-05 | 3.07E-04 | down CINSARC High vs. Low |
| <i>WDR93</i> | WD repeat domain 93 | 15q26.1 | 56964 | 5.13 | 4.48 | -0.65 | -4.51 | 9.27E-06 | 2.65E-04 | down CINSARC High vs. Low |
| <i>CACNA1F</i> | calcium voltage-gated chai | Xp11.23 | 778 | 4.29 | 3.21 | -1.08 | -4.56 | 7.51E-06 | 2.24E-04 | down CINSARC High vs. Low |
| <i>MDGA1</i> | MAM domain containing gl | 6p21.2 | 266727 | 7.17 | 6.53 | -0.64 | -4.58 | 6.95E-06 | 2.09E-04 | down CINSARC High vs. Low |
| <i>SCUBE2</i> | signal peptide, CUB domai | 11p15.4 | 57758 | 12.63 | 11.44 | -1.19 | -4.58 | 6.89E-06 | 2.09E-04 | down CINSARC High vs. Low |
| <i>SERPINA1</i> | serpin family A member 1 | 14q32.13 | 5265 | 11.24 | 10.11 | -1.13 | -4.60 | 6.21E-06 | 1.93E-04 | down CINSARC High vs. Low |
| <i>MAGI2</i> | membrane associated gua | 7q21.11 | 9863 | 8.11 | 7.34 | -0.77 | -4.65 | 4.91E-06 | 1.60E-04 | down CINSARC High vs. Low |
| <i>ANKRD24</i> | ankyrin repeat domain 24 | 19p13.3 | 170961 | 5.04 | 4.28 | -0.76 | -4.67 | 4.53E-06 | 1.51E-04 | down CINSARC High vs. Low |
| <i>RAB30</i> | RAB30, member RAS onco | 11q14.1 | 27314 | 8.74 | 7.93 | -0.81 | -4.72 | 3.68E-06 | 1.27E-04 | down CINSARC High vs. Low |
| <i>TENT5B</i> | terminal nucleotidyltransfer | 1p36.11 | 115572 | 7.97 | 6.97 | -1.00 | -4.73 | 3.40E-06 | 1.20E-04 | down CINSARC High vs. Low |
| <i>SPEF1</i> | sperm flagellar 1 | 20p13 | 25876 | 5.74 | 4.90 | -0.84 | -4.76 | 3.05E-06 | 1.10E-04 | down CINSARC High vs. Low |
| <i>AZGP1</i> | alpha-2-glycoprotein 1, zin | 7q22.1 | 563 | 14.26 | 13.30 | -0.96 | -4.76 | 3.02E-06 | 1.10E-04 | down CINSARC High vs. Low |
| <i>BCAN</i> | brevican | 1q23.1 | 63827 | 3.77 | 2.82 | -0.95 | -4.86 | 1.89E-06 | 7.27E-05 | down CINSARC High vs. Low |
| <i>TSNAXIP1</i> | translin associated factor X | 16q22.1 | 55815 | 5.03 | 4.32 | -0.71 | -4.93 | 1.35E-06 | 5.55E-05 | down CINSARC High vs. Low |
| <i>PRICKLE4</i> | prickle planar cell polarit | 6p21.1 | 29964 | 6.36 | 5.60 | -0.76 | -5.00 | 1.00E-06 | 4.25E-05 | down CINSARC High vs. Low |
| <i>TNNC1</i> | troponin C1, slow skeletal | 3p21.1 | 7134 | 2.75 | 1.94 | -0.81 | -5.12 | 5.53E-07 | 2.57E-05 | down CINSARC High vs. Low |
| <i>C2orf73</i> | chromosome 2 open readi | 2p16.2 | 129852 | 2.25 | 1.52 | -0.72 | -5.13 | 5.30E-07 | 2.48E-05 | down CINSARC High vs. Low |
| <i>CFAP43</i> | cilia and flagella associater | 10q25.1 | 80217 | 6.17 | 5.29 | -0.89 | -5.18 | 4.17E-07 | 1.98E-05 | down CINSARC High vs. Low |
| <i>NUDT18</i> | nudix hydrolase 18 | 8p21.3 | 79873 | 7.66 | 7.07 | -0.59 | -5.21 | 3.59E-07 | 1.76E-05 | down CINSARC High vs. Low |
| <i>PEBP4</i> | phosphatidylethanolamine | 8p21.3 | 157310 | 2.83 | 1.56 | -1.27 | -5.22 | 3.33E-07 | 1.64E-05 | down CINSARC High vs. Low |
| <i>RHBDL1</i> | rhomboid like 1 | 16p13.3 | 9028 | 6.40 | 5.40 | -1.01 | -5.23 | 3.18E-07 | 1.58E-05 | down CINSARC High vs. Low |
| <i>DUSP27</i> | dual specificity phosphatas | 1q24.1 | 92235 | 2.87 | 2.00 | -0.87 | -5.24 | 3.00E-07 | 1.50E-05 | down CINSARC High vs. Low |
| <i>CCDC189</i> | coiled-coil domain containi | 16p11.2 | 90835 | 6.75 | 6.05 | -0.70 | -5.32 | 2.02E-07 | 1.07E-05 | down CINSARC High vs. Low |
| <i>KIF13B</i> | kinesin family member 13B | 8p12 | 23303 | 10.79 | 10.05 | -0.74 | -5.33 | 1.96E-07 | 1.04E-05 | down CINSARC High vs. Low |
| <i>CX3CR1</i> | C-X3-C motif chemokine re | 3p22.2 | 1524 | 7.15 | 6.21 | -0.95 | -5.34 | 1.87E-07 | 1.01E-05 | down CINSARC High vs. Low |
| <i>DNAAF1</i> | dynein axonemal assembly | 16q24.1 | 123872 | 5.56 | 4.52 | -1.04 | -5.36 | 1.67E-07 | 9.06E-06 | down CINSARC High vs. Low |
| <i>CATSPERG</i> | cation channel sperm asso | 19q13.2 | 57828 | 5.15 | 4.39 | -0.76 | -5.41 | 1.30E-07 | 7.30E-06 | down CINSARC High vs. Low |
| <i>NHLRC4</i> | NHL repeat containing 4 | 16p13.3 | 283948 | 6.37 | 5.31 | -1.06 | -5.42 | 1.24E-07 | 7.00E-06 | down CINSARC High vs. Low |
| <i>CASC1</i> | cancer susceptibility 1 | 12p12.1 | 55259 | 5.95 | 5.14 | -0.81 | -5.42 | 1.23E-07 | 6.96E-06 | down CINSARC High vs. Low |
| <i>RIBC1</i> | RIB43A domain with coiled | Xp11.22 | 158787 | 6.54 | 5.86 | -0.68 | -5.67 | 3.44E-08 | 2.28E-06 | down CINSARC High vs. Low |
| <i>DRC3</i> | dynein regulatory complex | 17p11.2 | 83450 | 6.63 | 5.75 | -0.88 | -5.68 | 3.28E-08 | 2.20E-06 | down CINSARC High vs. Low |
| <i>C3orf18</i> | chromosome 3 open readi | 3p21.31 | 51161 | 7.78 | 7.06 | -0.72 | -5.81 | 1.57E-08 | 1.15E-06 | down CINSARC High vs. Low |
| <i>TTC12</i> | tetratricopeptide repeat do | 11q23.2 | 54970 | 8.40 | 7.80 | -0.60 | -6.05 | 4.31E-09 | 3.66E-07 | down CINSARC High vs. Low |
| <i>TTC36</i> | tetratricopeptide repeat do | 11q23.3 | 143941 | 6.17 | 4.87 | -1.30 | -6.06 | 4.04E-09 | 3.46E-07 | down CINSARC High vs. Low |
| <i>MORN1</i> | MORN repeat containing 1 | 1p36.32 | 79906 | 6.71 | 5.88 | -0.82 | -6.37 | 7.18E-10 | 7.46E-08 | down CINSARC High vs. Low |
| <i>C16orf71</i> | chromosome 16 open read | 16p13.3 | 146562 | 5.96 | 5.05 | -0.90 | -7.19 | 5.37E-12 | 7.46E-10 | down CINSARC High vs. Low |
| <i>TMEM25</i> | transmembrane protein 25 | 11q23.3 | 84866 | 10.38 | 9.71 | -0.66 | -7.50 | 7.61E-13 | 1.29E-10 | down CINSARC High vs. Low |

Supplementary Table 8: Ontologies of the 510 genes differentially expressed between the two CINSARC classes in Luminal B breast cancers.

| Terms ID | Terms | up CINSARC High vs. Low | | | | down CINSARC High vs. Low | | | |
|----------|---|-------------------------|------------------------------|----------|----------|---------------------------|------|---------|---------|
| | | N | Gene | p-value | q-value | N | Gene | p-value | q-value |
| GO:00002 | mitotic cell cycle | 42 | <i>CENPA,BUB1,NCAF</i> | 3.43E-21 | 2.02E-18 | | | | |
| GO:00070 | mitotic nuclear division | 32 | <i>BUB1,CCNA2,CCNE</i> | 3.84E-20 | 1.13E-17 | | | | |
| GO:00070 | chromosome segregation | 14 | <i>BUB1,HJURP,BIRC5</i> | 9.02E-13 | 1.77E-10 | | | | |
| GO:00000 | mitotic sister chromatid segregation | 8 | <i>SPAG5,MAD2L1,NC</i> | 1.81E-10 | 2.66E-08 | | | | |
| GO:00070 | mitotic spindle assembly checkpoint | 8 | <i>BUB1,TTK,BUB1B,C</i> | 6.20E-09 | 7.29E-07 | | | | |
| GO:00002 | mitotic cytokinesis | 6 | <i>CEP55,KIF23,KIF20</i> | 2.07E-07 | 1.69E-05 | | | | |
| GO:00070 | microtubule depolymerization | 4 | <i>KIF14,KIF2C,KIF18E</i> | 2.16E-07 | 1.69E-05 | | | | |
| GO:00009 | cytokinesis | 8 | <i>BIRC5,KIF23,PRC1</i> | 2.30E-07 | 1.69E-05 | | | | |
| GO:00070 | microtubule-based movement | 9 | <i>KIF14,KIF23,CENPE</i> | 3.07E-07 | 2.01E-05 | | | | |
| GO:00072 | small GTPase mediated signal transduction | 29 | <i>CENPA,BUB1,BIRC5</i> | 5.78E-07 | 3.40E-05 | | | | |
| GO:00000 | G2/M transition of mitotic cell cycle | 12 | <i>CCNA2,CCNB2,BIRC5</i> | 1.49E-06 | 7.98E-05 | | | | |
| GO:00000 | regulation of transcription involved in cell cycle | 5 | <i>RRM2,CDK1,ORC1</i> | 1.88E-06 | 9.23E-05 | | | | |
| GO:00070 | mitotic metaphase plate congression | 6 | <i>CEP55,KIF14,CENF</i> | 3.03E-06 | 1.37E-04 | | | | |
| GO:00070 | spindle organization | 4 | <i>TTK,SPAG5,ASPM,PLK1</i> | 4.71E-06 | 1.98E-04 | | | | |
| GO:00000 | regulation of cyclin-dependent protein kinase activity | 6 | <i>CCNA2,BLM,CDKN1A</i> | 5.33E-06 | 2.01E-04 | | | | |
| GO:00062 | DNA replication initiation | 5 | <i>MCM10,ORC1,CCN</i> | 5.47E-06 | 2.01E-04 | | | | |
| GO:00070 | mitotic spindle organization | 5 | <i>TTK,AURKA,NDC80</i> | 1.08E-05 | 3.73E-04 | | | | |
| GO:00903 | mitotic spindle assembly | 5 | <i>BIRC5,TPX2,KIF11,PLK1</i> | 2.37E-05 | 7.33E-04 | | | | |
| GO:00103 | regulation of G2/M transition of mitotic cell cycle | 3 | <i>KIF14,CENPF,PKIA</i> | 3.06E-05 | 8.99E-04 | | | | |
| GO:00062 | DNA replication | 10 | <i>TICRR,BLM,MCM10</i> | 3.78E-05 | 1.06E-03 | | | | |
| GO:00310 | endocrine pancreas development | 5 | <i>ONECUT2,HNF4G,FOXP2</i> | 4.68E-05 | 1.25E-03 | | | | |
| GO:00074 | peripheral nervous system development | 4 | <i>GFRA3,UGT8,SCN8A</i> | 5.84E-05 | 1.49E-03 | | | | |
| GO:00070 | mitotic G2 DNA damage checkpoint | 3 | <i>CCNA2,BLM,CDK1</i> | 6.44E-05 | 1.58E-03 | | | | |
| GO:00000 | G1/S transition of mitotic cell cycle | 10 | <i>MCM10,RRM2,CDK</i> | 9.74E-05 | 2.29E-03 | | | | |
| GO:00068 | ion transport | 10 | <i>CHRNA5,SLC7A5,S</i> | 1.23E-04 | 2.78E-03 | | | | |
| GO:00311 | mRNA 3-end processing | 220 | <i>CENPA,BUB1,NCAF</i> | 1.63E-04 | 3.56E-03 | | | | |
| GO:00070 | mitotic cell cycle checkpoint | 4 | <i>BUB1,TTK,BUB1B,PLK1</i> | 1.79E-04 | 3.76E-03 | | | | |
| GO:00198 | antigen processing and presentation of peptide antigens | 7 | <i>KIF23,CENPE,KIF20A</i> | 2.16E-04 | 4.37E-03 | | | | |
| GO:00901 | positive regulation of branching morphogenesis | 3 | <i>LHX1,SIX1,PAX2</i> | 3.21E-04 | 6.28E-03 | | | | |
| GO:00082 | cell proliferation | 15 | <i>BUB1,BUB1B,KIF2C</i> | 5.42E-04 | 1.03E-02 | | | | |
| GO:00016 | urogenital system development | 2 | <i>LHX1,PAX2</i> | 6.28E-04 | 1.12E-02 | | | | |
| GO:00158 | neutral amino acid transport | 2 | <i>SLC7A5,SLC6A15</i> | 6.28E-04 | 1.12E-02 | | | | |
| GO:00082 | positive regulation of cell proliferation | 17 | <i>BIRC5,KIF14,FOXM1</i> | 6.68E-04 | 1.12E-02 | | | | |
| GO:00063 | double-strand break repair | 8 | <i>KPNA2,BLM,TRIP13</i> | 7.55E-04 | 1.23E-02 | | | | |
| GO:00025 | chronic inflammatory response | 2 | <i>CAMP,S100A8</i> | 8.53E-04 | 1.29E-02 | | | | |
| GO:00063 | mitotic recombination | 2 | <i>TOP2A,RAD54B</i> | 8.53E-04 | 1.29E-02 | | | | |
| GO:00310 | response to caffeine | 2 | <i>DNMT3B,IL6</i> | 8.53E-04 | 1.29E-02 | | | | |
| GO:00063 | nucleosome assembly | 6 | <i>CENPA,HJURP,CEI</i> | 9.70E-04 | 1.43E-02 | | | | |
| GO:00073 | nervous system development | 12 | <i>GFRA3,SLC7A5,SCN</i> | 1.06E-03 | 1.43E-02 | | | | |
| GO:00017 | organ induction | 2 | <i>SIX1,HOXC11</i> | 1.12E-03 | 1.43E-02 | | | | |
| GO:00070 | mitotic chromosome condensation | 2 | <i>NCAPH,NCAPG</i> | 1.12E-03 | 1.43E-02 | | | | |
| GO:00164 | somatic hypermutation of immunoglobulin genes | 2 | <i>POLQ,EXO1</i> | 1.12E-03 | 1.43E-02 | | | | |
| GO:00218 | layer formation in cerebral cortex | 2 | <i>LRP8,CDK5R2</i> | 1.12E-03 | 1.43E-02 | | | | |
| GO:00218 | cell proliferation in forebrain | 2 | <i>KIF14,ARX</i> | 1.12E-03 | 1.43E-02 | | | | |
| GO:19035 | regulation of nucleic acid-templated transcription | 3 | <i>TRIP13,SAMD11,AC</i> | 1.30E-03 | 1.62E-02 | | | | |
| GO:00100 | glial cell differentiation | 2 | <i>NFIB,PAX2</i> | 1.44E-03 | 1.73E-02 | | | | |
| GO:00165 | protein autophosphorylation | 2 | <i>CTSV,PCSK2</i> | 1.44E-03 | 1.73E-02 | | | | |
| GO:00714 | cellular response to ionizing radiation | 3 | <i>BLM,ECT2,RAD51A</i> | 1.49E-03 | 1.75E-02 | | | | |
| GO:00018 | response to yeast | 2 | <i>CAMP,IL6</i> | 1.81E-03 | 2.00E-02 | | | | |
| GO:00022 | innate immune response in mucosa | 2 | <i>CAMP,BPIFB1</i> | 1.81E-03 | 2.00E-02 | | | | |
| GO:00105 | regulation of double-strand break repair | 2 | <i>RAD51AP1,FIGN</i> | 1.81E-03 | 2.00E-02 | | | | |
| GO:00068 | neurotransmitter transport | 3 | <i>SLC6A15,SLC6A11</i> | 1.94E-03 | 2.07E-02 | | | | |
| GO:00071 | cell communication | 3 | <i>CCL18,FRAS1,GJB3</i> | 1.94E-03 | 2.07E-02 | | | | |
| GO:00066 | leukotriene metabolic process | 2 | <i>CYP4F3,ALOX15</i> | 2.23E-03 | 2.27E-02 | | | | |
| GO:19043 | positive regulation of telomere capping | 2 | <i>NEK2,AURKB</i> | 2.23E-03 | 2.27E-02 | | | | |
| GO:00062 | DNA repair | 14 | <i>FOXM1,KPNA2,PAF</i> | 2.24E-03 | 2.27E-02 | | | | |
| GO:00068 | amino acid transport | 3 | <i>SLC7A5,SLC6A15,S</i> | 2.48E-03 | 2.35E-02 | | | | |
| GO:00100 | response to organic substance | 3 | <i>SQLE,AQP9,TRPA1</i> | 2.48E-03 | 2.35E-02 | | | | |
| GO:20012 | positive regulation of intrinsic apoptosis | 3 | <i>BUB1,IL19,S100A8</i> | 2.48E-03 | 2.35E-02 | | | | |
| GO:00068 | regulation of pH | 2 | <i>SLC9A2,ATP6V0A4</i> | 2.71E-03 | 2.53E-02 | | | | |
| GO:00009 | cell separation after cytokinesis | 2 | <i>CEP55,KIF20A</i> | 3.24E-03 | 2.85E-02 | | | | |
| GO:00015 | oocyte maturation | 2 | <i>TRIP13,EREG</i> | 3.24E-03 | 2.85E-02 | | | | |
| GO:00020 | morphogenesis of an epithelium | 2 | <i>SERPINB5,FRAS1</i> | 3.24E-03 | 2.85E-02 | | | | |
| GO:19038 | positive regulation of dendrite extension | 2 | <i>RIMS1,RASAL1</i> | 3.24E-03 | 2.85E-02 | | | | |
| GO:00026 | positive regulation of leukocyte chemotaxis | 2 | <i>IL6,CXCL9</i> | 3.84E-03 | 3.27E-02 | | | | |
| GO:00099 | anterior/posterior axis specification | 2 | <i>AURKA,LHX1</i> | 3.84E-03 | 3.27E-02 | | | | |
| GO:00062 | DNA-dependent DNA replication | 2 | <i>POLQ,ORC6</i> | 4.50E-03 | 3.78E-02 | | | | |
| GO:00020 | sprouting angiogenesis | 2 | <i>E2F8,E2F7</i> | 5.23E-03 | 4.21E-02 | | | | |
| GO:00901 | cochlea development | 2 | <i>PAX2,KCNK3</i> | 5.23E-03 | 4.21E-02 | | | | |
| GO:00025 | monocyte chemotaxis | 3 | <i>CCL18,IL6,CCL21</i> | 5.62E-03 | 4.47E-02 | | | | |
| GO:00001 | establishment of mitotic spindle orientation | 2 | <i>CENPA,NDC80</i> | 6.02E-03 | 4.59E-02 | | | | |
| GO:00072 | gamma-aminobutyric acid signaling pathway | 2 | <i>GABBR2,GABRA3</i> | 6.02E-03 | 4.59E-02 | | | | |
| GO:00901 | cochlea morphogenesis | 2 | <i>SIX1,PAX2</i> | 6.02E-03 | 4.59E-02 | | | | |
| GO:00713 | cellular response to interleukin-1 | 4 | <i>CAMP,CCL18,IL6,C</i> | 6.23E-03 | 4.69E-02 | | | | |
| GO:00070 | mitotic nuclear envelope disassembly | 3 | <i>CCNB2,CDK1,PLK1</i> | 6.70E-03 | 4.87E-02 | | | | |
| GO:00308 | positive regulation of actin filament polymerization | 3 | <i>PFN2,CCL21,ALOX</i> | 6.70E-03 | 4.87E-02 | | | | |
| GO:00075 | sex differentiation | 2 | <i>CENPI,DMRTA1</i> | 6.87E-03 | 4.87E-02 | | | | |
| GO:00108 | retina layer formation | 2 | <i>SDK2,LHX1</i> | 6.87E-03 | 4.87E-02 | | | | |
| GO:00715 | cellular response to dexamethasone | 2 | <i>DNMT3B,IL6</i> | 6.87E-03 | 4.87E-02 | | | | |
| GO:00063 | DNA recombination | 4 | <i>BLM,PIF1,EXO1,MN</i> | 7.07E-03 | 4.95E-02 | | | | |
| GO:00016 | branching involved in ureteric bud morphogenesis | 3 | <i>LHX1,SIX1,PAX2</i> | 7.28E-03 | 0.050 | | | | |
| GO:00007 | double-strand break repair via homologous recombination | 6 | <i>BLM,POLQ,RAD51A</i> | 7.77E-03 | 0.052 | | | | |
| GO:00018 | positive regulation of cytokine production | 2 | <i>EREG,LEP</i> | 7.80E-03 | 0.052 | | | | |
| GO:00713 | cellular response to epidermal growth factor | 2 | <i>GAREM,PAX2</i> | 7.80E-03 | 0.052 | | | | |
| GO:00015 | microtubule bundle formation | 2 | <i>KIF20A,PLK1</i> | 8.80E-03 | 0.057 | | | | |

| Terms ID | Terms | up CINSARC High vs. Low | | | | down CINSARC High vs. Low | | | |
|----------|---|-------------------------|-------------------------|----------|----------|---------------------------|-------------------------|----------|----------|
| | | N | Gene | p-value | q-value | N | Gene | p-value | q-value |
| GO:00017 | neuron migration | 5 | <i>ASPM,GFRA3,FGF1</i> | 9.79E-03 | 0.061 | | | | |
| GO:00109 | negative regulation of phosphatase ac | 3 | <i>CASC5,PCDH11X,E</i> | 9.95E-03 | 0.061 | | | | |
| GO:00002 | microtubule cytoskeleton organization | 4 | <i>BIRC5,PRC1,CDK1</i> | 1.07E-02 | 0.061 | | | | |
| GO:00071 | heterophilic cell-cell adhesion via plasm | 3 | <i>TENM2,L1CAM,CBL</i> | 1.07E-02 | 0.061 | | | | |
| GO:00986 | anion transmembrane transport | 3 | <i>SLC4A8,SLC04C1,</i> | 1.07E-02 | 0.061 | | | | |
| GO:00062 | DNA metabolic process | 2 | <i>KPNA2,MKI67</i> | 1.10E-02 | 0.061 | | | | |
| GO:00073 | pattern specification process | 2 | <i>LHX1,SIX1</i> | 1.10E-02 | 0.061 | | | | |
| GO:00099 | proximal/distal pattern formation | 2 | <i>HOXC10,HOXC11</i> | 1.10E-02 | 0.061 | | | | |
| GO:00709 | protein K11-linked ubiquitination | 2 | <i>UBE2C,UBE2T</i> | 1.22E-02 | 0.061 | | | | |
| GO:00015 | retinoid metabolic process | 3 | <i>LRP8,GPC2,LRAT</i> | 1.32E-02 | 0.061 | | | | |
| GO:00197 | antibacterial humoral response | 2 | <i>CAMP,IGJ</i> | 1.35E-02 | 0.062 | | | | |
| GO:00072 | spermatogenesis | 11 | <i>TRIP13,ASPM,DIAP</i> | 1.37E-02 | 0.062 | | | | |
| GO:00301 | cell differentiation | 13 | <i>FOXM1,CENPF,CB</i> | 1.47E-02 | 0.063 | | | | |
| GO:00033 | amino acid transmembrane transport | 2 | <i>SLC7A5,SLC6A14</i> | 1.49E-02 | 0.063 | | | | |
| GO:00071 | reciprocal meiotic recombination | 2 | <i>TRIP13,RAD54B</i> | 1.49E-02 | 0.063 | | | | |
| GO:00215 | cerebellum development | 2 | <i>LHX1,CDK5R2</i> | 1.49E-02 | 0.063 | | | | |
| GO:00718 | DNA biosynthetic process | 2 | <i>CENPF,POLQ</i> | 1.49E-02 | 0.063 | | | | |
| GO:00096 | response to toxic substance | 4 | <i>DNMT3B,SCN8A,TT</i> | 1.53E-02 | 0.063 | | | | |
| GO:00076 | phototransduction, visible light | 4 | <i>LRP8,CNGA2,GPC2</i> | 1.69E-02 | 0.066 | | | | |
| GO:00193 | arachidonic acid metabolic process | 3 | <i>CYP2J2,CYP4F3,AL</i> | 1.70E-02 | 0.066 | | | | |
| GO:00080 | regulation of heart contraction | 2 | <i>CYP2J2,TNNT2</i> | 1.78E-02 | 0.066 | | | | |
| GO:00159 | ATP hydrolysis coupled proton transp | 2 | <i>ATP1A3,ATP6V0A4</i> | 1.78E-02 | 0.066 | | | | |
| GO:00300 | insulin secretion | 2 | <i>FAM3B,LEP</i> | 1.94E-02 | 0.067 | | | | |
| GO:00071 | homophilic cell adhesion via plasma m | 6 | <i>SDK2,DSG2,L1CAM</i> | 2.01E-02 | 0.067 | | | | |
| GO:00311 | organ regeneration | 3 | <i>CCNA2,MKI67,CCN</i> | 2.03E-02 | 0.067 | | | | |
| GO:00071 | negative regulation of cell adhesion | 2 | <i>PDE3B,ADAMDEC1</i> | 2.28E-02 | 0.069 | | | | |
| GO:00713 | cellular response to tumor necrosis fac | 4 | <i>CAMP,CCL18,IL6,C</i> | 2.41E-02 | 0.071 | | | | |
| GO:00068 | water transport | 2 | <i>ADCY5,AQP9</i> | 2.46E-02 | 0.071 | | | | |
| GO:00906 | activation of GTPase activity | 2 | <i>ECT2,CCL21</i> | 2.46E-02 | 0.071 | | | | |
| GO:00076 | sensory perception of sound | 5 | <i>SCN8A,GJB3,COCH</i> | 2.55E-02 | 0.071 | | | | |
| GO:00075 | excretion | 2 | <i>AQP9,ATP6V0A4</i> | 2.65E-02 | 0.072 | | | | |
| GO:00094 | response to cold | 2 | <i>IL6,TRPA1</i> | 2.65E-02 | 0.072 | | | | |
| GO:00100 | response to zinc ion | 2 | <i>GGH,S100A8</i> | 2.65E-02 | 0.072 | | | | |
| GO:00157 | bicarbonate transport | 2 | <i>SLC4A8,SLC4A10</i> | 2.65E-02 | 0.072 | | | | |
| GO:00063 | transcription from RNA polymerase II p | 15 | <i>FOXM1,TRIP13,PTI</i> | 2.89E-02 | 0.074 | | | | |
| GO:00016 | ureteric bud development | 2 | <i>LHX1,SIX1</i> | 3.05E-02 | 0.077 | | | | |
| GO:00903 | phagosome maturation | 2 | <i>CAMP,ATP6V0A4</i> | 3.05E-02 | 0.077 | | | | |
| GO:00075 | blood coagulation | 13 | <i>KIF23,CENPE,KIF2</i> | 3.25E-02 | 0.080 | | | | |
| GO:00713 | cellular response to retinoic acid | 3 | <i>PAX2,BRINP3,LEP</i> | 3.40E-02 | 0.083 | | | | |
| GO:00022 | hematopoietic progenitor cell differenti | 3 | <i>TOP2A,ANLN,PTPR</i> | 3.89E-02 | 0.091 | | | | |
| GO:00064 | protein phosphorylation | 14 | <i>BUB1,BIRC5,TTK,B</i> | 3.91E-02 | 0.091 | | | | |
| GO:00303 | embryonic limb morphogenesis | 2 | <i>FRAS1,HOXC10</i> | 3.94E-02 | 0.091 | | | | |
| GO:00073 | regulation of mitotic cell cycle | 3 | <i>BIRC5,PLK1,RPRM</i> | 4.06E-02 | 0.091 | | | | |
| GO:00001 | negative regulation of transcription fro | 18 | <i>FOXM1,PLK1,AURK</i> | 4.08E-02 | 0.091 | | | | |
| GO:00068 | sodium ion transport | 3 | <i>SCN8A,ATP1A3,SL</i> | 4.42E-02 | 0.098 | | | | |
| GO:00140 | response to organic cyclic compound | 2 | <i>MKI67,TRPA1</i> | 4.69E-02 | 0.101 | | | | |
| GO:00160 | lipid catabolic process | 3 | <i>PLCB4,PLCH1,PLA</i> | 4.80E-02 | 0.102 | | | | |
| GO:00018 | placenta development | 5 | <i>E2F8,E2F7,DLX3,G</i> | 1.97E-05 | 6.42E-04 | 2 | <i>CITED1,NDP</i> | 4.45E-03 | 4.21E-02 |
| GO:00162 | O-glycan processing | 5 | <i>MUC13,ST6GALNA</i> | 6.51E-04 | 1.12E-02 | 2 | <i>MUC1,GALNT5</i> | 2.38E-02 | 0.067 |
| GO:00725 | reactive oxygen species metabolic pro | 3 | <i>IL19,AOX1,PAX2</i> | 2.48E-03 | 2.35E-02 | 2 | <i>MPV17L,EPHX2</i> | 4.45E-03 | 4.21E-02 |
| GO:00072 | cell-cell signaling | 8 | <i>AREG,FGF13,CCL1</i> | 2.09E-02 | 0.067 | 5 | <i>NDP,CARTPT,GJA1</i> | 3.11E-02 | 0.080 |
| GO:00217 | hippocampus development | 3 | <i>KIF14,FGF13,CDK5</i> | 1.15E-02 | 0.061 | 2 | <i>DLX2,BCAN</i> | 1.45E-02 | 0.053 |
| GO:00064 | protein O-linked glycosylation | 4 | <i>MUC13,GALNT3,B3</i> | 1.32E-02 | 0.061 | 3 | <i>MUC1,GALNT5,ADA</i> | 9.03E-03 | 4.21E-02 |
| GO:00074 | axonogenesis | 4 | <i>SLITRK5,PTPRZ1,P</i> | 1.77E-02 | 0.066 | 3 | <i>SPTBN4,ADCY1,CA</i> | 1.16E-02 | 4.86E-02 |
| GO:00065 | cellular amino acid metabolic process | 2 | <i>SLC7A5,SLC6A14</i> | 2.11E-02 | 0.067 | 2 | <i>SLC7A2,SLC7A4</i> | 4.86E-03 | 4.21E-02 |
| GO:00076 | adult walking behavior | 2 | <i>SCN8A,EFNB3</i> | 2.11E-02 | 0.067 | 2 | <i>KLHL1,SPTBN4</i> | 4.86E-03 | 4.21E-02 |
| GO:00900 | establishment of protein localization to | 2 | <i>TSPAN5,ACTN2</i> | 1.94E-02 | 0.067 | 2 | <i>SPTBN4,TSPAN10</i> | 4.45E-03 | 4.21E-02 |
| GO:00300 | muscle filament sliding | 3 | <i>TNNI1,TNNT2,ACT</i> | 4.67E-03 | 3.87E-02 | 3 | <i>TNNI3,MYBPC1,TNI</i> | 6.45E-04 | 4.21E-02 |
| GO:00072 | synaptic transmission | 12 | <i>GABBR2,CHRNA5,S</i> | 2.65E-02 | 0.072 | 10 | <i>GRIA2,CARTPT,P2I</i> | 2.95E-03 | 4.21E-02 |
| GO:00085 | epidermis development | | | | | 2 | <i>KRT15,CDSN</i> | 4.98E-02 | 0.099 |
| GO:00025 | platelet degranulation | | | | | 2 | <i>CLU,SERPINA1</i> | 4.53E-02 | 0.094 |
| GO:00074 | brain development | | | | | 4 | <i>CITED1,DLX2,C11o</i> | 4.50E-02 | 0.094 |
| GO:00065 | proteolysis | | | | | 8 | <i>WFDC2,TPSG1,CFI</i> | 4.30E-02 | 0.092 |
| GO:00071 | cell adhesion | | | | | 8 | <i>COL4A6,CDSN,MYE</i> | 3.95E-02 | 0.088 |
| GO:00986 | cation transmembrane transport | | | | | 2 | <i>TMEM63C,CHRNA2</i> | 3.43E-02 | 0.083 |
| GO:00074 | central nervous system development | | | | | 3 | <i>CHST8,ZBTB16,BC</i> | 2.91E-02 | 0.076 |
| GO:00072 | neurotransmitter secretion | | | | | 2 | <i>GAD1,ABAT</i> | 2.71E-02 | 0.073 |
| GO:00718 | potassium ion transmembrane transp | | | | | 3 | <i>KCNE4,HPN,KCNQ</i> | 2.29E-02 | 0.066 |
| GO:00015 | vasculogenesis | | | | | 2 | <i>TNNI3,CITED1</i> | 2.28E-02 | 0.066 |
| GO:00165 | negative regulation of angiogenesis | | | | | 2 | <i>BAI2,CX3CR1</i> | 1.89E-02 | 0.060 |
| GO:00160 | synaptic vesicle exocytosis | | | | | 2 | <i>SYT13,SYT12</i> | 1.62E-02 | 0.056 |
| GO:00072 | phospholipase C-activating G-protein | | | | | 2 | <i>AGTR1,P2RY11</i> | 1.54E-02 | 0.053 |
| GO:00303 | sperm motility | | | | | 2 | <i>ATP1A4,TEKT3</i> | 1.54E-02 | 0.053 |
| GO:00067 | glutathione metabolic process | | | | | 2 | <i>CLIC6,GSTM2</i> | 1.38E-02 | 0.051 |
| GO:00069 | vesicle fusion | | | | | 2 | <i>SYT13,SYT12</i> | 1.38E-02 | 0.051 |
| GO:00303 | negative regulation of cell migration | | | | | 3 | <i>CHRD,MAGI2,CX3C</i> | 1.31E-02 | 0.050 |
| GO:00300 | actin cytoskeleton organization | | | | | 4 | <i>KLHL1,FGD3,ABLI</i> | 1.22E-02 | 4.95E-02 |
| GO:00071 | adenylate cyclase-activating G-protein | | | | | 2 | <i>P2RY11,ADCY1</i> | 1.09E-02 | 4.70E-02 |
| GO:00068 | potassium ion transport | | | | | 3 | <i>ATP1A4,KCND3,KC</i> | 1.03E-02 | 4.57E-02 |
| GO:00305 | negative regulation of BMP signaling p | | | | | 2 | <i>CHRD,TPRSS6</i> | 8.94E-03 | 4.21E-02 |
| GO:00095 | fertilization | | | | | 2 | <i>ATP1A4,SPTBN4</i> | 8.35E-03 | 4.21E-02 |
| GO:00068 | xenobiotic metabolic process | | | | | 5 | <i>CYP2A7,NAT1,ACS</i> | 8.27E-03 | 4.21E-02 |
| GO:00076 | visual perception | | | | | 5 | <i>NDP,MYO3B,NXNL</i> | 8.27E-03 | 4.21E-02 |
| GO:00097 | embryo development | | | | | 2 | <i>FOXI1,RAI2</i> | 6.72E-03 | 4.21E-02 |
| GO:20012 | negative regulation of extrinsic apopto | | | | | 2 | <i>FGF10,CX3CR1</i> | 5.29E-03 | 4.21E-02 |
| GO:00171 | regulation of calcium ion-dependent ex | | | | | 2 | <i>SYT13,SYT12</i> | 4.86E-03 | 4.21E-02 |
| GO:00164 | protein processing | | | | | 3 | <i>RHBDL3,ADAMTS1</i> | 4.50E-03 | 4.21E-02 |

| Terms ID | Terms | up CINSARC High vs. Low | | | | down CINSARC High vs. Low | | | |
|----------|--|-------------------------|------|---------|---------|---------------------------|-------------------------|----------|----------|
| | | N | Gene | p-value | q-value | N | Gene | p-value | q-value |
| GO:00016 | metanephros development | | | | | 2 | <i>CITED1,FGF10</i> | 3.70E-03 | 4.21E-02 |
| GO:00018 | retina homeostasis | | | | | 2 | <i>PIP,AZGP1</i> | 3.70E-03 | 4.21E-02 |
| GO:00068 | transport | | | | | 9 | <i>SLC7A2,SLC25A48,</i> | 3.70E-03 | 4.21E-02 |
| GO:00068 | cellular calcium ion homeostasis | | | | | 4 | <i>TNNI3,STC2,EPHX2</i> | 3.06E-03 | 4.21E-02 |
| GO:00076 | long-term memory | | | | | 2 | <i>ADCY1,GRIA1</i> | 2.73E-03 | 4.21E-02 |
| GO:00069 | complement activation | | | | | 2 | <i>CFB,CLU</i> | 2.44E-03 | 4.21E-02 |
| GO:00723 | intrinsic apoptotic signaling pathway by | | | | | 2 | <i>ZNF385D,ZNF385B</i> | 2.44E-03 | 4.21E-02 |
| GO:00109 | negative regulation of endopeptidase a | | | | | 5 | <i>CST9,WFDC2,CST6</i> | 1.57E-03 | 4.21E-02 |
| GO:00015 | detection of chemical stimulus involve | | | | | 2 | <i>PIP,AZGP1</i> | 1.49E-03 | 4.21E-02 |
| GO:00033 | cilium movement | | | | | 2 | <i>CFAP221,DNAAF1</i> | 1.49E-03 | 4.21E-02 |
| GO:00098 | embryonic pattern specification | | | | | 2 | <i>FGF10,ZBTB16</i> | 1.49E-03 | 4.21E-02 |
| GO:00197 | calcium-mediated signaling | | | | | 3 | <i>AGTR1,P2RY11,LAU</i> | 1.13E-03 | 4.21E-02 |
| GO:00193 | epoxygenase P450 pathway | | | | | 2 | <i>CYP2A7,EPHX2</i> | 9.61E-04 | 4.21E-02 |
| GO:00069 | acute-phase response | | | | | 3 | <i>ORM1,ORM2,SERP</i> | 2.91E-04 | 3.23E-02 |
| GO:00216 | cerebellar Purkinje cell layer developm | | | | | 2 | <i>SEZ6L,KLHL1</i> | 2.30E-04 | 3.23E-02 |
| GO:00018 | mesonephros development | | | | | 2 | <i>FGF10,ZBTB16</i> | 1.74E-04 | 3.23E-02 |

Supplementary Table 9: Comparison of expression levels of 226 proteins/phosphoproteins between the two CINSARC classes in Luminal B TCGA breast cancers.

| Gene#Prot | N | CINSARC, High- vs. Low-risk | | |
|-------------------------------|-----|-----------------------------|----------|----------|
| | | Odds ratio [95%CI] | p-value | q-value |
| CCNB1#Cyclin_B1 | 240 | 1.66 [1.41-1.96] | 6.53E-07 | 1.46E-04 |
| FASN#FASN | 240 | 1.41 [1.09-1.83] | 2.85E-02 | 0.227 |
| MSH6#MSH6 | 240 | 1.32 [1.19-1.47] | 1.38E-05 | 1.03E-03 |
| FOXO1#FoxO1 | 240 | 1.31 [1.20-1.44] | 2.31E-06 | 2.58E-04 |
| RPS6KB1#p70S6K | 240 | 1.28 [1.11-1.47] | 3.86E-03 | 0.086 |
| EIF4EBP1#4E-BP1 | 240 | 1.26 [1.08-1.46] | 1.22E-02 | 0.143 |
| SYK#Syk | 240 | 1.26 [1.10-1.44] | 4.65E-03 | 0.093 |
| ACACA#ACC1 | 240 | 1.24 [1.03-1.49] | 0.0548 | 0.313 |
| SLC1A5#SLC1A5 | 218 | 1.24 [1.07-1.43] | 1.52E-02 | 0.161 |
| ENY2#ENY2 | 218 | 1.23 [1.10-1.37] | 2.46E-03 | 0.063 |
| TSC1#TSC1 | 240 | 1.23 [1.08-1.40] | 9.29E-03 | 0.117 |
| ACACA ACACB#ACC_pS79 | 240 | 1.21 [1.02-1.44] | 0.0717 | 0.385 |
| GAPDH#GAPDH | 240 | 1.21 [0.99-1.49] | 0.12 | 0.532 |
| TFRC#TFRC | 240 | 1.21 [1.04-1.40] | 3.88E-02 | 0.277 |
| YWHAZ#14-3-3_zeta | 240 | 1.20 [1.09-1.33] | 2.21E-03 | 0.063 |
| ASNS#ASNS | 240 | 1.20 [1.08-1.33] | 5.48E-03 | 0.093 |
| CASP7#Caspase-7_cleavedD198 | 240 | 1.20 [1.03-1.39] | 4.68E-02 | 0.291 |
| RBM15#RBM15 | 240 | 1.20 [1.03-1.40] | 4.80E-02 | 0.291 |
| NKX2-1#TTF1 | 22 | 1.20 [0.76-1.91] | 0.514 | 0.811 |
| TUBA1B#Acetyl-a-Tubulin-Lys40 | 240 | 1.19 [0.96-1.46] | 0.178 | 0.584 |
| KAT2A#GCN5L2 | 218 | 1.19 [1.07-1.32] | 6.22E-03 | 0.093 |
| SCD#SCD | 240 | 1.18 [0.94-1.49] | 0.234 | 0.643 |
| MYH11#MYH11 | 240 | 1.17 [0.83-1.65] | 0.455 | 0.799 |
| EIF4G1#eIF4G | 240 | 1.17 [1.03-1.33] | 4.82E-02 | 0.291 |
| IGFBP2#IGFBP2 | 240 | 1.16 [0.94-1.43] | 0.252 | 0.643 |
| XRCC5#Ku80 | 240 | 1.15 [1.06-1.25] | 6.65E-03 | 0.093 |
| NFKB1#NF-kB-p65_pS536 | 240 | 1.15 [1.00-1.32] | 0.104 | 0.494 |
| STAT5A#STAT5-alpha | 240 | 1.15 [0.99-1.33] | 0.123 | 0.532 |
| ERBB2#HER2 | 240 | 1.14 [0.97-1.34] | 0.197 | 0.605 |
| INPP4B#INPP4B | 240 | 1.14 [0.96-1.36] | 0.206 | 0.605 |
| EEF2#eEF2 | 240 | 1.14 [1.05-1.24] | 9.44E-03 | 0.117 |
| CCNE2#Cyclin_E2 | 240 | 1.13 [1.06-1.20] | 1.10E-03 | 0.061 |
| EIF4EBP1#4E-BP1_pT70 | 240 | 1.12 [1.05-1.20] | 6.61E-03 | 0.093 |
| PRKAA1#AMPK_pT172 | 240 | 1.12 [0.98-1.26] | 0.151 | 0.570 |
| CCNE1#Cyclin_E1 | 240 | 1.12 [1.02-1.22] | 4.17E-02 | 0.277 |
| GSK3A GSK3B#GSK3-alpha-beta | 240 | 1.12 [1.03-1.22] | 2.67E-02 | 0.221 |
| MSH2#MSH2 | 240 | 1.12 [1.04-1.21] | 1.39E-02 | 0.155 |
| RPS6#S6 | 240 | 1.12 [0.99-1.26] | 0.124 | 0.532 |
| RPS6#S6_pS240_S244 | 240 | 1.12 [0.96-1.30] | 0.213 | 0.617 |
| EIF4EBP1#4E-BP1_pS65 | 240 | 1.11 [1.03-1.19] | 1.67E-02 | 0.163 |
| ADAR#ADAR1 | 240 | 1.11 [1.01-1.22] | 0.0791 | 0.401 |
| PARP1#PARP1 | 109 | 1.11 [0.86-1.44] | 0.491 | 0.808 |
| PXN#Paxillin | 240 | 1.11 [1.03-1.19] | 1.87E-02 | 0.174 |
| AKT1 AKT2 AKT3#Akt | 240 | 1.10 [0.98-1.23] | 0.169 | 0.580 |
| ANXA1#Annexin-1 | 240 | 1.10 [0.97-1.25] | 0.2 | 0.605 |
| CDK1#CDK1 | 240 | 1.09 [1.03-1.16] | 1.68E-02 | 0.163 |
| LCK#Lck | 240 | 1.09 [0.99-1.21] | 0.15 | 0.570 |
| PTEN#PTEN | 240 | 1.09 [0.99-1.20] | 0.128 | 0.539 |
| TSC2#Tuberin | 240 | 1.09 [0.99-1.21] | 0.154 | 0.570 |
| CDKN1B#p27_pT198 | 240 | 1.09 [1.03-1.14] | 6.07E-03 | 0.093 |
| SQSTM1#p62-LCK-ligand | 240 | 1.09 [0.89-1.32] | 0.483 | 0.808 |
| PRKCB#PKC-pan_Betall_pS660 | 240 | 1.08 [0.98-1.18] | 0.204 | 0.605 |
| EIF4E#eIF4E | 240 | 1.08 [1.02-1.14] | 2.25E-02 | 0.193 |

| Gene#Prot | CINSARC, High- vs. Low-risk | | | |
|--------------------------|-----------------------------|--------------------|----------|---------|
| | N | Odds ratio [95%CI] | p-value | q-value |
| EIF4EBP1#4E-BP1_pT37_T46 | 240 | 1.07 [0.91-1.26] | 0.5 | 0.808 |
| TP53BP1#53BP1 | 240 | 1.07 [0.94-1.21] | 0.406 | 0.774 |
| RAF1#C-Raf | 240 | 1.07 [1.01-1.13] | 4.15E-02 | 0.277 |
| EPPK1#EPPK1 | 240 | 1.07 [0.81-1.41] | 0.698 | 0.899 |
| RB1#Rb_pS807_S811 | 240 | 1.07 [0.93-1.24] | 0.422 | 0.774 |
| DIABLO#Smac | 240 | 1.07 [0.97-1.19] | 0.263 | 0.643 |
| SMAD3#Smad3 | 240 | 1.07 [1.01-1.13] | 0.0535 | 0.313 |
| SRC#Src | 240 | 1.07 [1.00-1.15] | 0.103 | 0.494 |
| MTOR#mTOR | 240 | 1.07 [0.96-1.19] | 0.279 | 0.662 |
| BRD4#BRD4 | 240 | 1.06 [0.94-1.19] | 0.418 | 0.774 |
| DVL3#Dvl3 | 240 | 1.06 [1.00-1.13] | 0.12 | 0.532 |
| JAK2#Jak2 | 240 | 1.06 [0.97-1.14] | 0.266 | 0.643 |
| PCNA#PCNA | 240 | 1.06 [0.99-1.14] | 0.173 | 0.584 |
| RICTOR#Rictor | 240 | 1.06 [0.96-1.16] | 0.312 | 0.718 |
| KIT#c-Kit | 240 | 1.06 [0.90-1.25] | 0.564 | 0.835 |
| CASP3#Caspase-3 | 240 | 1.05 [0.97-1.14] | 0.333 | 0.728 |
| CCND1#Cyclin_D1 | 240 | 1.05 [0.95-1.17] | 0.427 | 0.774 |
| ERBB2#HER2_pY1248 | 240 | 1.05 [0.94-1.19] | 0.47 | 0.808 |
| PRDX1#PRDX1 | 240 | 1.05 [0.98-1.12] | 0.284 | 0.667 |
| RAD51#Rad51 | 240 | 1.05 [0.99-1.12] | 0.202 | 0.605 |
| RPTOR#Raptor | 240 | 1.05 [0.98-1.13] | 0.263 | 0.643 |
| BAP1#Bap1-c-4 | 240 | 1.04 [0.98-1.11] | 0.266 | 0.643 |
| CDK1#CDK1_pY15 | 240 | 1.04 [0.95-1.12] | 0.485 | 0.808 |
| ETS1#ETS-1 | 240 | 1.04 [0.95-1.14] | 0.442 | 0.788 |
| FOXO3#FOXO3a | 240 | 1.04 [0.97-1.11] | 0.341 | 0.728 |
| G6PD#G6PD | 240 | 1.04 [0.95-1.13] | 0.497 | 0.808 |
| RPS6#S6_pS235_S236 | 240 | 1.04 [0.88-1.22] | 0.702 | 0.899 |
| TP53#p53 | 240 | 1.04 [0.94-1.15] | 0.505 | 0.808 |
| PRKAA1#AMPK_alpha | 240 | 1.03 [0.95-1.11] | 0.577 | 0.835 |
| MYH9#Myosin-IIa | 218 | 1.03 [0.95-1.11] | 0.597 | 0.835 |
| MYH9#Myosin-IIa_pS1943 | 240 | 1.03 [0.93-1.15] | 0.626 | 0.857 |
| PIK3CA #PI3K-p110-alpha | 240 | 1.03 [0.98-1.08] | 0.396 | 0.768 |
| STMN1#Stathmin | 240 | 1.03 [0.96-1.10] | 0.499 | 0.808 |
| YBX1#YB-1 | 240 | 1.03 [0.95-1.12] | 0.551 | 0.826 |
| MYC#c-Myc | 240 | 1.03 [0.94-1.13] | 0.599 | 0.835 |
| BRCA2#BRCA2 | 240 | 1.02 [0.97-1.07] | 0.486 | 0.808 |
| ITGA2#CD49b | 240 | 1.02 [0.94-1.10] | 0.724 | 0.902 |
| COG3#COG3 | 240 | 1.02 [0.92-1.14] | 0.755 | 0.926 |
| CHEK2#Chk2 | 240 | 1.02 [0.92-1.14] | 0.718 | 0.901 |
| CLDN7#Claudin-7 | 240 | 1.02 [0.85-1.22] | 0.869 | 0.952 |
| GUSP4#DUSP4 | 240 | 1.02 [0.85-1.22] | 0.882 | 0.955 |
| GAB2#GAB2 | 240 | 1.02 [0.88-1.19] | 0.814 | 0.931 |
| ERBB3#HER3 | 240 | 1.02 [0.92-1.13] | 0.784 | 0.930 |
| SERPINE1#PAI-1 | 240 | 1.02 [0.88-1.19] | 0.824 | 0.933 |
| RICTOR#Rictor_pT1135 | 240 | 1.02 [0.96-1.09] | 0.516 | 0.811 |
| STAT3#STAT3_pY705 | 240 | 1.02 [0.94-1.11] | 0.661 | 0.883 |
| SRC#Src_pY527 | 240 | 1.02 [0.89-1.17] | 0.781 | 0.930 |
| TIGAR#TIGAR | 240 | 1.02 [0.97-1.07] | 0.57 | 0.835 |
| MAPK14#p38_MAPK | 240 | 1.02 [0.96-1.09] | 0.549 | 0.826 |
| MAPK14#p38_pT180_Y182 | 240 | 1.02 [0.90-1.16] | 0.809 | 0.930 |
| ARID1A#ARID1A | 240 | 1.01 [0.94-1.08] | 0.855 | 0.945 |
| AXL#Axl | 218 | 1.01 [0.94-1.09] | 0.808 | 0.930 |
| BRAF#B-Raf | 240 | 1.01 [0.88-1.16] | 0.927 | 0.980 |
| PECAM1#CD31 | 240 | 1.01 [0.93-1.09] | 0.912 | 0.973 |
| MAPK1#ERK2 | 240 | 1.01 [0.93-1.10] | 0.804 | 0.930 |
| CDH3#P-Cadherin | 240 | 1.01 [0.95-1.08] | 0.738 | 0.915 |
| PEA15#PEA15_pS116 | 240 | 1.01 [0.91-1.11] | 0.917 | 0.974 |

| Gene#Prot | CINSARC, High- vs. Low-risk | | | |
|-------------------------|-----------------------------|--------------------|---------|---------|
| | N | Odds ratio [95%CI] | p-value | q-value |
| SRC#Src_pY416 | 240 | 1.01 [0.92-1.11] | 0.846 | 0.945 |
| TGM2#Transglutaminase | 240 | 1.01 [0.94-1.08] | 0.795 | 0.930 |
| MET#c-Met_pY1235 | 240 | 1.01 [0.95-1.07] | 0.856 | 0.945 |
| CDKN1B#p27 | 240 | 1.01 [0.92-1.10] | 0.902 | 0.967 |
| CDKN1B#p27_pT157 | 240 | 1.01 [0.97-1.06] | 0.578 | 0.835 |
| AR#AR | 240 | 1.00 [0.85-1.18] | 0.998 | 0.985 |
| BAD#Bad_pS112 | 240 | 1.00 [0.93-1.07] | 0.977 | 0.985 |
| BAK1#Bak | 240 | 1.00 [0.93-1.08] | 0.993 | 0.985 |
| BECN1#Beclin | 240 | 1.00 [0.94-1.06] | 0.95 | 0.985 |
| BCL2L11#Bim | 240 | 1.00 [0.88-1.14] | 0.991 | 0.985 |
| DPP4#CD26 | 240 | 1.00 [0.94-1.06] | 0.964 | 0.985 |
| CHEK2#Chk2_pT68 | 240 | 1.00 [0.91-1.10] | 0.97 | 0.985 |
| FOXO3#FOXO3a_pS318_S321 | 240 | 1.00 [0.96-1.05] | 0.855 | 0.945 |
| MAP2K1#MEK1 | 240 | 1.00 [0.92-1.09] | 0.968 | 0.985 |
| NF2#NF2 | 240 | 1.00 [0.93-1.07] | 0.958 | 0.985 |
| PRKCA #PKC-alpha_pS657 | 240 | 1.00 [0.93-1.08] | 0.974 | 0.985 |
| PRKCD#PKC-delta_pS664 | 240 | 1.00 [0.96-1.04] | 0.98 | 0.985 |
| SMAD1#Smad1 | 240 | 1.00 [0.95-1.06] | 0.98 | 0.985 |
| XBP1#XBP1 | 240 | 1.00 [0.93-1.07] | 0.998 | 0.985 |
| MTOR#mTOR_pS2448 | 240 | 1.00 [0.92-1.08] | 0.963 | 0.985 |
| ARAF#A-Raf_pS299 | 240 | 0.99 [0.93-1.05] | 0.777 | 0.930 |
| MS4A1#CD20 | 240 | 0.99 [0.94-1.05] | 0.874 | 0.952 |
| CASP8#Caspase-8 | 240 | 0.99 [0.94-1.05] | 0.822 | 0.933 |
| CHEK1#Chk1_pS296 | 240 | 0.99 [0.93-1.06] | 0.875 | 0.952 |
| CHEK1#Chk1_pS345 | 240 | 0.99 [0.94-1.05] | 0.793 | 0.930 |
| EGFR#EGFR | 240 | 0.99 [0.94-1.05] | 0.76 | 0.926 |
| NRAS#N-Ras | 240 | 0.99 [0.93-1.04] | 0.674 | 0.895 |
| NDRG1#NDRG1_pT346 | 240 | 0.99 [0.84-1.17] | 0.96 | 0.985 |
| SRSF1#SF2 | 240 | 0.99 [0.95-1.04] | 0.757 | 0.926 |
| SNAI1#Snail | 240 | 0.99 [0.93-1.04] | 0.69 | 0.899 |
| TSC2#Tuberin_pT1462 | 240 | 0.99 [0.91-1.08] | 0.898 | 0.967 |
| XRCC1#XRCC1 | 240 | 0.99 [0.94-1.04] | 0.679 | 0.896 |
| BIRC2 #cIAP | 240 | 0.99 [0.94-1.05] | 0.837 | 0.943 |
| ATM#ATM | 240 | 0.98 [0.87-1.11] | 0.803 | 0.930 |
| BAX#Bax | 240 | 0.98 [0.91-1.05] | 0.616 | 0.848 |
| EGFR#EGFR_pY1068 | 240 | 0.98 [0.88-1.08] | 0.709 | 0.899 |
| EGFR#EGFR_pY1173 | 240 | 0.98 [0.92-1.05] | 0.661 | 0.883 |
| ERCC1#ERCC1 | 240 | 0.98 [0.94-1.03] | 0.585 | 0.835 |
| STK11#LKB1 | 240 | 0.98 [0.94-1.02] | 0.466 | 0.808 |
| ERRF1#MIG-6 | 240 | 0.98 [0.93-1.03] | 0.445 | 0.788 |
| PARP1#PARP_cleaved | 240 | 0.98 [0.93-1.03] | 0.525 | 0.819 |
| SHC1#Shc_pY317 | 240 | 0.98 [0.90-1.05] | 0.595 | 0.835 |
| WWTR1#TAZ | 240 | 0.98 [0.92-1.04] | 0.599 | 0.835 |
| EEF2K#eEF2K | 240 | 0.98 [0.88-1.09] | 0.771 | 0.930 |
| CDKN2A#p16_INK4a | 240 | 0.98 [0.85-1.12] | 0.774 | 0.930 |
| RPS6KB1#p70S6K_pT389 | 240 | 0.98 [0.90-1.06] | 0.66 | 0.883 |
| YWHAB#14-3-3_beta | 240 | 0.97 [0.92-1.02] | 0.26 | 0.643 |
| YWHAE#14-3-3_epsilon | 240 | 0.97 [0.93-1.01] | 0.259 | 0.643 |
| BRAF#B-Raf_pS445 | 240 | 0.97 [0.87-1.09] | 0.691 | 0.899 |
| BCL2L1#Bcl-xL | 240 | 0.97 [0.92-1.03] | 0.42 | 0.774 |
| BID#Bid | 240 | 0.97 [0.91-1.04] | 0.504 | 0.808 |
| RAF1#C-Raf_pS338 | 240 | 0.97 [0.92-1.02] | 0.392 | 0.767 |
| CHEK1#Chk1 | 240 | 0.97 [0.91-1.02] | 0.319 | 0.726 |
| GATA6#GATA6 | 218 | 0.97 [0.90-1.06] | 0.592 | 0.835 |
| GSK3A GSK3B#GSK3_pS9 | 240 | 0.97 [0.83-1.13] | 0.719 | 0.901 |
| NRG1#Heregulin | 240 | 0.97 [0.92-1.03] | 0.439 | 0.788 |
| MRE11A#Mre11 | 240 | 0.97 [0.91-1.03] | 0.424 | 0.774 |

| Gene#Prot | CINSARC, High- vs. Low-risk | | | |
|--------------------------------------|-----------------------------|--------------------|----------|---------|
| | N | Odds ratio [95%CI] | p-value | q-value |
| NOTCH1#Notch1 | 240 | 0.97 [0.93-1.02] | 0.322 | 0.726 |
| PDK1#PDK1_pS241 | 240 | 0.97 [0.90-1.05] | 0.547 | 0.826 |
| PEA15#PEA15 | 240 | 0.97 [0.91-1.03] | 0.345 | 0.728 |
| AKT1S1#PRAS40_pT246 | 240 | 0.97 [0.91-1.02] | 0.334 | 0.728 |
| RB1#Rb | 240 | 0.97 [0.91-1.04] | 0.484 | 0.808 |
| SMAD4#Smad4 | 240 | 0.97 [0.93-1.02] | 0.349 | 0.728 |
| ARAF#A-Raf | 240 | 0.96 [0.90-1.03] | 0.375 | 0.749 |
| ANXA7#Annexin_VII | 240 | 0.96 [0.91-1.01] | 0.219 | 0.626 |
| ERBB3#HER3_pY1289 | 240 | 0.96 [0.91-1.02] | 0.235 | 0.643 |
| IRF1#IRF-1 | 240 | 0.96 [0.91-1.01] | 0.167 | 0.580 |
| COPS5#JAB1 | 240 | 0.96 [0.91-1.02] | 0.237 | 0.643 |
| CDH2#N-Cadherin | 240 | 0.96 [0.89-1.04] | 0.414 | 0.774 |
| PIK3R1 PIK3R2#PI3K-p85 | 240 | 0.96 [0.89-1.03] | 0.341 | 0.728 |
| PRKCA #PKC-alpha | 240 | 0.96 [0.90-1.02] | 0.262 | 0.643 |
| RAB25#Rab25 | 240 | 0.96 [0.87-1.06] | 0.507 | 0.808 |
| SETD2#SETD2 | 240 | 0.96 [0.91-1.02] | 0.261 | 0.643 |
| PTPN11#SHP-2_pY542 | 240 | 0.96 [0.89-1.04] | 0.388 | 0.766 |
| YAP1#YAP_pS127 | 240 | 0.96 [0.85-1.08] | 0.552 | 0.826 |
| ABL1#c-Abl | 240 | 0.96 [0.91-1.01] | 0.151 | 0.570 |
| RPS6KA1#p90RSK_pT359_S363 | 240 | 0.96 [0.91-1.03] | 0.334 | 0.728 |
| ACVRL1#ACVRL1 | 240 | 0.95 [0.89-1.01] | 0.14 | 0.570 |
| ESR1#ER-alpha_pS118 | 240 | 0.95 [0.84-1.08] | 0.533 | 0.826 |
| GSK3A GSK3B#GSK3-alpha-beta_pS21_S35 | 240 | 0.95 [0.82-1.10] | 0.572 | 0.835 |
| MAPK9#JNK2 | 240 | 0.95 [0.87-1.03] | 0.267 | 0.643 |
| MAP2K1#MEK1_pS217_S221 | 240 | 0.95 [0.88-1.03] | 0.295 | 0.685 |
| YAP1#YAP | 240 | 0.95 [0.88-1.03] | 0.346 | 0.728 |
| YBX1#YB-1_pS102 | 240 | 0.95 [0.88-1.01] | 0.176 | 0.584 |
| MET#c-Met | 240 | 0.95 [0.90-1.01] | 0.166 | 0.580 |
| BCL2A1#Bcl2A1 | 240 | 0.94 [0.86-1.02] | 0.202 | 0.605 |
| CAV1#Caveolin-1 | 240 | 0.94 [0.74-1.20] | 0.694 | 0.899 |
| PARK7#DJ-1 | 240 | 0.94 [0.87-1.02] | 0.193 | 0.605 |
| CDH1#E-Cadherin | 240 | 0.94 [0.72-1.23] | 0.709 | 0.899 |
| GATA3#GATA3 | 240 | 0.94 [0.78-1.14] | 0.607 | 0.841 |
| IGFR1#IGF1R_pY1135_Y1136 | 240 | 0.94 [0.89-1.00] | 0.0823 | 0.408 |
| IRS1#IRS1 | 240 | 0.94 [0.87-1.03] | 0.268 | 0.643 |
| RPS6KA1#p90RSK | 240 | 0.94 [0.87-1.01] | 0.181 | 0.585 |
| DIRAS3#DIRAS3 | 240 | 0.93 [0.86-0.99] | 0.0777 | 0.401 |
| ESR1#ER-alpha | 240 | 0.93 [0.69-1.23] | 0.657 | 0.883 |
| PDK1#PDK1 | 240 | 0.93 [0.88-0.98] | 2.03E-02 | 0.181 |
| JUN#c-Jun_pS73 | 240 | 0.93 [0.88-0.98] | 3.14E-02 | 0.242 |
| CDKN1A#p21 | 240 | 0.93 [0.86-1.01] | 0.149 | 0.570 |
| BCL2#Bcl-2 | 240 | 0.92 [0.77-1.09] | 0.416 | 0.774 |
| RAB11A RAB11B#Rab11 | 240 | 0.91 [0.82-1.02] | 0.159 | 0.572 |
| CTNNB1#beta-Catenin | 240 | 0.91 [0.77-1.07] | 0.356 | 0.735 |
| PREX1#PREX1 | 240 | 0.90 [0.73-1.10] | 0.373 | 0.749 |
| HSPA1A#HSP70 | 240 | 0.89 [0.71-1.11] | 0.376 | 0.749 |
| AKT1 AKT2 AKT3#Akt_pT308 | 240 | 0.88 [0.77-1.02] | 0.15 | 0.570 |
| FN1#Fibronectin | 240 | 0.88 [0.73-1.05] | 0.242 | 0.643 |
| RAD50#Rad50 | 240 | 0.88 [0.83-0.94] | 1.71E-03 | 0.063 |
| CASP9#Caspase-9 | 15 | 0.87 [0.60-1.25] | 0.537 | 0.826 |
| COL6A1#Collagen_VI | 240 | 0.87 [0.68-1.12] | 0.359 | 0.735 |
| ERCC5#ERCC5 | 240 | 0.87 [0.81-0.94] | 2.17E-03 | 0.063 |
| MAPK8#JNK_pT183_pY185 | 240 | 0.86 [0.79-0.93] | 2.56E-03 | 0.063 |
| KDR#VEGFR2 | 240 | 0.86 [0.75-0.99] | 0.0725 | 0.385 |
| PDCD4#PDCD4 | 240 | 0.85 [0.70-1.03] | 0.156 | 0.570 |
| AKT1 AKT2 AKT3#Akt_pS473 | 240 | 0.83 [0.68-1.01] | 0.116 | 0.532 |
| MAPK1 MAPK3#MAPK_pT202_Y204 | 240 | 0.79 [0.66-0.95] | 3.46E-02 | 0.257 |

| Gene#Prot | CINSARC, High- vs. Low-risk | | | |
|----------------------|-----------------------------|--------------------|----------|---------|
| | N | Odds ratio [95%CI] | p-value | q-value |
| CTNNA1#alpha-Catenin | 22 | 0.74 [0.60-0.93] | 4.22E-02 | 0.277 |
| PGR#PR | 240 | 0.66 [0.45-0.96] | 0.0675 | 0.376 |

Supplementary Table 10: List of breast cancer data sets included in the study

| Reference | Source of data | N° of samples | Technological platform | N° of probe sets | N° of samples | N° of non-redundant non-metastatic, non-inflammatory, primary, invasive breast cancers | N° of non-redundant non-metastatic, non-inflammatory, primary, invasive breast cancers treated with primary surgery and with clinico-pathological annotations including survival |
|--|---|---------------|--------------------------|------------------|---------------|--|--|
| van de Vijver et al., NEJM 2002 | http://microarray-pubs.stanford.edu/wound_NKI/ | 295 | Agilent Hu25K | 25K | 254 | 254 | 254 |
| vant Veer et al., Nature 2002 | http://www.rii.com/publications/2002/vantveer.html | 117 | Agilent Hu25K | 25K | 117 | 117 | 97 |
| Expression Project for Oncology (expO), 2005 | https://expo.intgen.org/geo | 348 | Affymetrix U133 Plus 2.0 | 54K | 348 | 342 | |
| Färmer P et al., Oncogene 2005 | GEO: GSE2109 | | | | | | |
| Minn AJ et al., Nature 2005 | GEO: GSE1561 | 49 | Affymetrix U133A | 22K | 49 | 49 | |
| Wang Y et al., Lancet 2005 | GEO: GSE2603 | 99 | Affymetrix U133A | 22K | 99 | 99 | 82 |
| Hess KR et al., J Clin Oncol 2006 | MDA133 | 133 | Affymetrix U133A | 22K | 131 | 131 | |
| Ishina et al., Cancer Res 2006 | GEO: GSE4922, GSE1456 | 448 | Affymetrix U133 A+B | 2x22K | 448 | 448 | 406 |
| Sotiriou C et al., J Natl Cancer Inst 2006 | GEO: GSE2990 | 189 | Affymetrix U133A | 22K | 80 | 80 | 80 |
| Bonnefoi et al., Lancet Oncol 2007 | GEO: GSE6861, GSE4779 | 161 | Affymetrix X3P | 61K | 125 | 125 | |
| Desmedt C et al., Clin Cancer Res 2007 | GEO: GSE7390 | 198 | Affymetrix U133A | 22K | 154 | 154 | 154 |
| Klein A et al., Int J Cancer 2007 | GEO: GSE6596 | 26 | Affymetrix U133A | 22K | 24 | 20 | |
| Marty et al., Breast Cancer Res 2008 | GEO: GSE13787 | 23 | Affymetrix U133 Plus 2.0 | 54K | 23 | 23 | |
| Merritt WM et al., N Engl J Med 2008 | Array Express: E-MTAB-158 | 130 | Affymetrix U133AAofAv2 | 23K | 130 | 125 | 119 |
| Schmidt M et al., Cancer Res 2008 | GEO: GSE11121 | 200 | Affymetrix U133A | 22K | 200 | 200 | 200 |
| Yu K et al., PLoS Genet 2008 | GEO: GSE5364 | 196 | Affymetrix U133A | 22K | 183 | 183 | |
| Bos et al., Nature 2009 | GEO: GSE12276 | 204 | AffymetrixU133 Plus 2.0 | 54K | 204 | 204 | 196 |
| Hoefflich et al., Clin Cancer Res 2009 | GEO: GSE12763 | 30 | Affymetrix U133 Plus 2.0 | 54K | 30 | 30 | |
| Zhang Y et al., Breast Cancer Res Treat 2009 | GEO: GSE12093 | 136 | Affymetrix U133A | 22K | 136 | 136 | 136 |
| Miller WR et al., Breast Cancer Res 2010 | GEO: GSE5462 | 116 | Affymetrix U133A | 22K | 116 | 116 | |
| Barry et al., J Clin Oncol 2010 | GEO: GSE23593 | 50 | Affymetrix U133 Plus 2.0 | 54K | 50 | 50 | |
| Korde et al., Breast Cancer Res Treat 2010 | GEO: GSE18728 | 61 | Affymetrix U133 Plus 2.0 | 54K | 61 | 61 | |
| Prat A et al., Breast Cancer Res 2010 | GEO: GSE18229 | 337 | Agilent Hu25K | 25K | 264 | 264 | 235 |
| Silver et al., J Clin Oncol 2010 | GEO: GSE18864 | 84 | Affymetrix U133 Plus 2.0 | 54K | 84 | 84 | |
| Tabchy A et al., Clin Cancer Res 2010 | GEO: GSE20271 | 178 | Affymetrix U133A | 22K | 178 | 178 | |
| Jonsson et al., Breast Cancer Res 2010 | GEO: GSE22133 | 359 | Swegene H_v2.1.1 55K | 55K | 346 | 346 | 339 |
| Chen et al., Breast Cancer Res Treat 2010 | GEO: GSE10780 | 185 | Affymetrix U133 Plus 2.0 | 54K | 42 | 42 | |
| Popovici V et al., Breast Cancer Res 2010 | GEO: GSE20194 | 278 | Affymetrix U133A | 22K | 91 | 91 | |
| Iwamoto T et al., J Natl Cancer Inst 2011 | GEO: GSE22093, GSE22597 | 247 | Affymetrix U133A | 22K | 100 | 100 | |
| Desmedt et al., J Clin Oncol 2011 | GEO: GSE16446 | 120 | Affymetrix U133 Plus 2.0 | 54K | 120 | 120 | |
| Guedj et al., Oncogene 2011 | Array Express: E-MTAB-365 | 537 | Affymetrix U133 Plus 2.0 | 54K | 452 | 452 | 157 |
| Hatzis C et al., JAMA 2011 | GEO: GSE25066 | 508 | Affymetrix U133A | 22K | 504 | 504 | |
| Sabatier R et al., PLoS One 2011 | GEO: GSE31448 | 353 | Affymetrix U133 Plus 2.0 | 54K | 286 | 280 | 280 |
| TCGA, Nature 2012 | TCGA Data Portal - BRCA - | 1215 | Illumina, RNAseq V2 | 20K | 1092 | 1071 | 1070 |
| Ellis et al., Nature 2012 | GEO: GSE29442, GSE35186 | 201 | Agilent-014850 4x44K | 44K | 201 | 201 | |
| Curtis et al., Nature 2012 | https://www.cbioportal.org/study/summary?id=brca_metabric | 2136 | Illumina HT 12 | 49K | 1974 | 1964 | 1944 |
| TOTAL | | 10233 | | | 8982 | 8930 | 6035 |