

| Feature ID | Un-treated | TGF-beta |
|------------|------------|----------|
| 3.8-1.2 | 0 | 0 |
| 3.8-1.3 | 0 | 0 |
| 3.8-1.5 | 0 | 0 |
| 5-HT3c2 | 0 | 0 |
| A1BG | 1.51201417 | 1.325448 |
| A1CF | 0 | 0 |
| A2BP1 | 0.01164838 | 0.004411 |
| A2LD1 | 0 | 0 |
| A2M | 0.00903732 | 0.005133 |
| A2ML1 | 0.01215337 | 0.027613 |
| A2MP | 0 | 0 |
| A3GALT2 | 0.06165786 | 0.046696 |
| A4GALT | 0.01005035 | 0.045669 |
| A4GNT | 0.04748804 | 0.026974 |
| AAA1 | 0 | 0 |
| AAAS | 4.99022553 | 4.732814 |
| AACP | 0 | 0 |
| AACS | 5.95116263 | 6.739039 |
| AACSL | 0 | 0 |
| AADAC | 0.01309174 | 0 |
| AADACL1 | 0.61276903 | 0.506772 |
| AADACL2 | 0 | 0 |
| AADACL3 | 0.01038544 | 0 |
| AADACL4 | 0 | 0 |
| AADAT | 0.00874598 | 0 |
| AAK1 | 2.13862172 | 2.066711 |
| AAMP | 14.9276332 | 12.8151 |
| AANAT | 0 | 0.023766 |
| AARS | 4.09314906 | 3.971328 |
| AARS2 | 1.09479452 | 0.819146 |
| AARSD1 | 0.86046728 | 0.566669 |
| AASDH | 1.66455456 | 1.582506 |
| AASDHPPT | 6.91535702 | 6.678814 |
| AASS | 0.02148731 | 0.016273 |
| AATF | 18.0595907 | 17.25841 |
| AATK | 0.04749698 | 0.067447 |
| ABAT | 5.48147752 | 7.483732 |
| ABCA1 | 23.840286 | 25.85336 |
| ABCA10 | 0.08966734 | 0.083 |
| ABCA11P | 0 | 0 |
| ABCA12 | 0.00905289 | 0 |
| ABCA13 | 0.00489416 | 0.00139 |
| ABCA17P | 0 | 0 |
| ABCA2 | 0.77964744 | 1.1114 |
| ABCA3 | 0.03492053 | 0.032457 |
| ABCA4 | 0.00286996 | 0.00326 |

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| ABCA5 | 1.81562026 | 1.69844 |
| ABCA6 | 0 | 0.00451 |
| ABCA7 | 32.298041 | 32.17257 |
| ABCA8 | 0 | 0.004175 |
| ABCA9 | 0.00333682 | 0.003791 |
| ABCB1 | 0.08199534 | 0.083343 |
| ABCB10 | 13.2628028 | 14.42272 |
| ABCB10P1 | 0 | 0 |
| ABCB11 | 0.05283853 | 0.040017 |
| ABCB4 | 0.02636075 | 0.011978 |
| ABCB5 | 0 | 0.017159 |
| ABCB6 | 0.7852664 | 0.747414 |
| ABCB7 | 4.23677595 | 3.512222 |
| ABCB8 | 3.2236147 | 4.61585 |
| ABCB9 | 0.04705993 | 0.047521 |
| ABCC1 | 41.4708958 | 41.28587 |
| ABCC10 | 5.69436047 | 5.2812 |
| ABCC11 | 0.01285167 | 0.038933 |
| ABCC12 | 0.00813674 | 0 |
| ABCC13 | 0 | 0 |
| ABCC2 | 0.92826149 | 0.841724 |
| ABCC3 | 0.00398887 | 0.013594 |
| ABCC4 | 3.2755394 | 3.09452 |
| ABCC5 | 7.8837548 | 6.202958 |
| ABCC6 | 0.06783581 | 0.051375 |
| ABCC6P1 | 0 | 0 |
| ABCC6P2 | 0 | 0 |
| ABCC8 | 0.0084473 | 0.004798 |
| ABCC9 | 0.0149063 | 0.028223 |
| ABCD1 | 9.95030674 | 11.10162 |
| ABCD1P2 | 0 | 0 |
| ABCD1P3 | 0 | 0 |
| ABCD1P4 | 0 | 0 |
| ABCD2 | 0.00393659 | 0 |
| ABCD3 | 5.326934 | 5.818732 |
| ABCD4 | 6.85304579 | 5.923991 |
| ABCE1 | 0.31081796 | 0.267668 |
| ABCF1 | 14.0937698 | 14.28004 |
| ABCF2 | 1.72365861 | 1.582748 |
| ABCF3 | 18.6791918 | 18.37816 |
| ABCG1 | 41.1991506 | 54.60779 |
| ABCG2 | 0 | 0 |
| ABCG4 | 0.02670901 | 0.024273 |
| ABCG5 | 0.00767348 | 0.008717 |
| ABCG8 | 0 | 0.008963 |
| ABHD1 | 0.31988747 | 0.297325 |
| ABHD10 | 9.60612701 | 7.028221 |

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| ABHD11 | 2.85846241 | 2.879405 |
| ABHD12 | 10.7551937 | 12.03793 |
| ABHD12B | 3.27356419 | 2.328042 |
| ABHD13 | 7.67729927 | 7.807034 |
| ABHD14A | 0.39595727 | 0.359851 |
| ABHD14B | 1.23882732 | 1.131123 |
| ABHD15 | 16.365829 | 23.10028 |
| ABHD2 | 147.716015 | 113.8341 |
| ABHD3 | 7.67057859 | 8.517171 |
| ABHD4 | 19.366098 | 16.21217 |
| ABHD5 | 7.10925631 | 6.608228 |
| ABHD6 | 1.76602237 | 1.567055 |
| ABHD8 | 6.10639995 | 8.58264 |
| ABI1 | 26.1039687 | 22.96044 |
| ABI1P | 0 | 0 |
| ABI2 | 0.0973395 | 0.147439 |
| ABI3 | 12.2722534 | 17.87136 |
| ABI3BP | 0.0047005 | 0.01602 |
| ABL1 | 3.44134211 | 3.328614 |
| ABL2 | 0.38436621 | 0.353475 |
| ABLIM1 | 0.2304354 | 0.247395 |
| ABLIM2 | 0.00870254 | 0.009886 |
| ABLIM3 | 0 | 0.00551 |
| ABO | 5.35287083 | 6.398608 |
| ABP1 | 1.63665056 | 1.023085 |
| ABR | 37.1738127 | 46.23153 |
| ABRA | 0.01526894 | 0 |
| ABT1 | 11.2259417 | 11.70423 |
| ABTB1 | 89.5349535 | 84.67603 |
| ABTB2 | 16.6925621 | 13.28678 |
| ACAA1 | 55.7593164 | 48.01971 |
| ACAA2 | 16.7854762 | 18.63631 |
| ACACA | 0.5949171 | 0.585584 |
| ACACB | 15.7110365 | 14.34656 |
| ACAD10 | 1.77304267 | 1.521843 |
| ACAD11 | 0.85733211 | 0.785871 |
| ACAD8 | 26.3007429 | 21.15414 |
| ACAD9 | 4.04992783 | 4.322509 |
| ACADL | 0 | 0 |
| ACADM | 8.13676288 | 9.042546 |
| ACADS | 2.20453392 | 1.507615 |
| ACADSB | 2.45962044 | 2.054417 |
| ACADVL | 128.945561 | 128.2572 |
| ACAN | 0.00247502 | 0.008435 |
| ACAP1 | 123.745977 | 146.7772 |
| ACAP2 | 20.9460566 | 21.10001 |
| ACAP3 | 13.5023009 | 14.55727 |

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| ACAT1 | 1.02274762 | 0.960767 |
| ACAT2 | 4.69037041 | 3.110762 |
| ACBD3 | 11.9723483 | 12.1268 |
| ACBD4 | 1.44186776 | 1.377987 |
| ACBD5 | 5.85875553 | 5.874351 |
| ACBD6 | 2.87610659 | 2.320912 |
| ACBD7 | 0.02495588 | 0.042525 |
| ACCN1 | 0.00984332 | 0.011182 |
| ACCN2 | 0.00536908 | 0.006099 |
| ACCN3 | 1.57085806 | 2.413677 |
| ACCN4 | 0.00767068 | 0.008714 |
| ACCN5 | 0 | 0 |
| ACCS | 37.0180029 | 27.13543 |
| ACCSL | 0 | 0 |
| ACD | 3.66365883 | 3.375824 |
| ACE | 0.00472904 | 0 |
| ACE2 | 0.00599525 | 0.006811 |
| ACER1 | 0.01932475 | 0 |
| ACER2 | 0.09583776 | 0.075374 |
| ACER3 | 9.04371997 | 10.21392 |
| ACHE | 0.05688287 | 0.024232 |
| ACIN1 | 67.4615925 | 62.31992 |
| ACLY | 24.0876006 | 22.51884 |
| ACMSD | 0.15114056 | 0.038155 |
| ACN9 | 0.13287764 | 0.174174 |
| ACO1 | 0.78178695 | 0.814112 |
| ACO2 | 13.6844912 | 12.9316 |
| ACOT1 | 0.02623248 | 0 |
| ACOT11 | 4.77732307 | 4.759609 |
| ACOT12 | 0 | 0.012009 |
| ACOT13 | 1.79241658 | 1.551401 |
| ACOT2 | 0.28557326 | 0.486624 |
| ACOT4 | 0.11594852 | 0.146355 |
| ACOT6 | 0 | 0 |
| ACOT7 | 3.11551576 | 6.798608 |
| ACOT8 | 13.2657663 | 11.6845 |
| ACOT9 | 67.9214368 | 46.27654 |
| ACOX1 | 3.94207834 | 3.899419 |
| ACOX2 | 0 | 0.010403 |
| ACOX3 | 1.43387782 | 1.263235 |
| ACOXL | 0.00633102 | 0.007192 |
| ACP1 | 10.1497747 | 8.968015 |
| ACP2 | 2.67363638 | 2.076517 |
| ACP5 | 220.220013 | 339.3797 |
| ACP6 | 4.33763742 | 2.655369 |
| ACPL2 | 0.78654963 | 0.675781 |
| ACPP | 3.94844481 | 3.102937 |

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| ACPT | 0.03121801 | 0.017732 |
| ACR | 0 | 0 |
| ACRBP | 1.25973616 | 1.380423 |
| ACRC | 1.47534575 | 1.097302 |
| ACRV1 | 0 | 0 |
| ACSBG1 | 0.00742945 | 0.00844 |
| ACSBG2 | 0.0077527 | 0.026422 |
| ACSF2 | 19.8702994 | 20.10872 |
| ACSF3 | 1.76128427 | 1.809977 |
| ACSL1 | 11.4990049 | 14.9588 |
| ACSL3 | 8.0851823 | 8.040207 |
| ACSL4 | 117.966491 | 116.4662 |
| ACSL5 | 4.82953649 | 3.470486 |
| ACSL6 | 0.12110591 | 0.107005 |
| ACSM1 | 2.22452307 | 2.806588 |
| ACSM2A | 0 | 0.008058 |
| ACSM2B | 0 | 0 |
| ACSM3 | 19.7037912 | 24.02064 |
| ACSM4 | 0.01206273 | 0.054814 |
| ACSM5 | 0 | 0 |
| ACSS1 | 10.4962137 | 9.857347 |
| ACSS2 | 6.55563196 | 5.750545 |
| ACSS3 | 0.02079657 | 0.023625 |
| ACTA1 | 0.02816521 | 0.063992 |
| ACTA2 | 0.52250958 | 0.490348 |
| ACTB | 4348.53043 | 4463.668 |
| ACTBL2 | 0.01505034 | 0.008549 |
| ACTBL3 | 0.48029225 | 0.276882 |
| ACTBP11 | 0 | 0 |
| ACTBP2 | 0 | 0 |
| ACTBP4 | 0 | 0 |
| ACTBP6 | 0 | 0 |
| ACTBP7 | 0 | 0 |
| ACTBP8 | 0 | 0 |
| ACTBP9 | 0 | 0 |
| ACTC1 | 0.00569329 | 0.025871 |
| ACTG1 | 736.423447 | 813.9732 |
| ACTG1P11 | 0 | 0 |
| ACTG1P2 | 0 | 0 |
| ACTG2 | 0.3001362 | 0.197398 |
| ACTGP1 | 0 | 0 |
| ACTGP10 | 0 | 0 |
| ACTGP3 | 0 | 0 |
| ACTGP9 | 0 | 0 |
| ACTL6A | 4.42348254 | 4.122876 |
| ACTL6B | 0.02735892 | 0.01554 |
| ACTL7A | 0 | 0.016668 |

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| ACTL7B | 0.04479829 | 0 |
| ACTL8 | 0.01257496 | 0.014285 |
| ACTN1 | 177.974907 | 183.9109 |
| ACTN2 | 0.0046434 | 0.0211 |
| ACTN3 | 0.00735923 | 0 |
| ACTN4 | 101.832164 | 107.3449 |
| ACTR10 | 10.1682702 | 10.24067 |
| ACTR1A | 36.9132507 | 36.38052 |
| ACTR1B | 19.9638218 | 19.97125 |
| ACTR2 | 165.62659 | 160.1225 |
| ACTR3 | 151.534336 | 156.0547 |
| ACTR3B | 1.24297091 | 1.075319 |
| ACTR3BP1 | 0 | 0 |
| ACTR5 | 3.08722084 | 3.256622 |
| ACTR6 | 6.61309555 | 6.137997 |
| ACTR8 | 8.95291398 | 8.307275 |
| ACTRT1 | 0 | 0 |
| ACTRT2 | 0 | 0 |
| ACVR1 | 9.85055673 | 13.43921 |
| ACVR1B | 32.4936933 | 33.3713 |
| ACVR1C | 0.03937762 | 0.015788 |
| ACVR2A | 0.28466791 | 0.177635 |
| ACVR2B | 0.18487058 | 0.159612 |
| ACVRL1 | 0.00477414 | 0.010847 |
| ACY1 | 0.20802448 | 0.168799 |
| ACY3 | 0.03234666 | 0.036746 |
| ACYP1 | 1.21885977 | 0.830786 |
| ACYP2 | 0.41226139 | 0.370766 |
| ADA | 0.23330981 | 0.077954 |
| ADAD1 | 0 | 0 |
| ADAD2 | 0.01825116 | 0 |
| ADAL | 1.10588655 | 0.934568 |
| ADAM1 | 0 | 0 |
| ADAM10 | 16.7153255 | 16.66544 |
| ADAM11 | 0.396434 | 0.303854 |
| ADAM12 | 0.00602014 | 0 |
| ADAM15 | 3.43690108 | 3.46161 |
| ADAM17 | 13.302701 | 14.2428 |
| ADAM18 | 0 | 0 |
| ADAM19 | 20.0952519 | 10.60433 |
| ADAM2 | 0.0079551 | 0 |
| ADAM20 | 0.01506113 | 0.034219 |
| ADAM21 | 0 | 0 |
| ADAM21P | 0 | 0 |
| ADAM22 | 0.01740508 | 0.039545 |
| ADAM23 | 0.01376003 | 0.007816 |
| ADAM28 | 19.8591625 | 18.69636 |

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| ADAM29 | 0.01264682 | 0 |
| ADAM30 | 0 | 0 |
| ADAM32 | 0.01542012 | 0.026276 |
| ADAM33 | 0.0059748 | 0.006787 |
| ADAM3A | 0 | 0 |
| ADAM3B | 0 | 0 |
| ADAM5P | 0 | 0 |
| ADAM6 | 0 | 0 |
| ADAM7 | 0 | 0 |
| ADAM8 | 926.679388 | 952.3684 |
| ADAM9 | 11.8539985 | 15.63982 |
| ADAMDEC1 | 0.25009623 | 0.19594 |
| ADAMTS1 | 0.01808242 | 0.020542 |
| ADAMTS10 | 0.03473621 | 0.067647 |
| ADAMTS12 | 0.01272977 | 0.00482 |
| ADAMTS13 | 0.00852263 | 0.033886 |
| ADAMTS14 | 0.22346148 | 0.630106 |
| ADAMTS15 | 0 | 0.008372 |
| ADAMTS16 | 0.00422705 | 0.009604 |
| ADAMTS17 | 0.03985215 | 0.033955 |
| ADAMTS18 | 0.00711156 | 0.008079 |
| ADAMTS19 | 0.00413153 | 0.004693 |
| ADAMTS2 | 0.09028591 | 0.089745 |
| ADAMTS20 | 0 | 0.004166 |
| ADAMTS3 | 0 | 0.004103 |
| ADAMTS4 | 0.01941397 | 0.011027 |
| ADAMTS5 | 0.00217586 | 0.002472 |
| ADAMTS6 | 0.00578573 | 0.003286 |
| ADAMTS7 | 3.12890627 | 3.054162 |
| ADAMTS8 | 0.03443953 | 0.013041 |
| ADAMTS9 | 0.00862519 | 0 |
| ADAMTSL1 | 0.00263641 | 0.002995 |
| ADAMTSL2 | 0.00508718 | 0 |
| ADAMTSL3 | 0.00286605 | 0.006512 |
| ADAMTSL4 | 1.36420171 | 1.449771 |
| ADAMTSL5 | 0.00783942 | 0.008906 |
| ADAP1 | 60.7851192 | 69.82434 |
| ADAP2 | 0.16826383 | 0.147707 |
| ADAR | 87.6809668 | 87.60592 |
| ADARB1 | 65.4239544 | 67.6728 |
| ADARB2 | 0 | 0.013073 |
| ADAT1 | 4.12488158 | 3.582328 |
| ADAT2 | 0.09078585 | 0.152791 |
| ADAT3 | 0 | 0 |
| ADC | 0.2794384 | 0.284607 |
| ADCK1 | 1.20467429 | 1.04778 |
| ADCK2 | 1.88552037 | 1.586278 |

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| ADCK4 | 6.30589269 | 4.817735 |
| ADCK5 | 1.94738434 | 2.02993 |
| ADCY1 | 0.00168216 | 0.003822 |
| ADCY10 | 0.00807424 | 0.004586 |
| ADCY2 | 0.0032085 | 0.00729 |
| ADCY3 | 0.14823408 | 0.135803 |
| ADCY4 | 8.98622134 | 8.895244 |
| ADCY5 | 0 | 0 |
| ADCY6 | 0.00941714 | 0.003566 |
| ADCY7 | 20.0696341 | 28.82323 |
| ADCY8 | 0.00512688 | 0 |
| ADCY9 | 0.17691217 | 0.182423 |
| ADCYAP1 | 0.01283206 | 0 |
| ADCYAP1R1 | 0 | 0 |
| ADD1 | 63.4532911 | 59.9535 |
| ADD2 | 0 | 0 |
| ADD3 | 90.7205778 | 75.68607 |
| ADFP | 69.9357726 | 49.27812 |
| ADH1A | 0.01444047 | 0.032809 |
| ADH1B | 0 | 0 |
| ADH1C | 0 | 0 |
| ADH4 | 0 | 0 |
| ADH5 | 11.8804253 | 10.04548 |
| ADH5P2 | 0 | 0 |
| ADH5P3 | 0 | 0 |
| ADH5P4 | 0 | 0 |
| ADH6 | 0.02098336 | 0.023837 |
| ADH7 | 0 | 0 |
| ADHFE1 | 2.75160004 | 2.684712 |
| ADI1 | 26.457293 | 22.61675 |
| ADIG | 0.02730562 | 0 |
| ADIPOQ | 0.00459269 | 0.005217 |
| ADIPOR1 | 71.957619 | 72.24701 |
| ADIPOR2 | 145.06683 | 172.027 |
| ADK | 0.94751379 | 0.74271 |
| ADM | 0.37726612 | 0.609903 |
| ADM2 | 0.03466258 | 0.033752 |
| ADNP | 21.0877869 | 20.15005 |
| ADNP2 | 3.76567268 | 3.147444 |
| ADO | 3.02620231 | 3.931679 |
| ADORA1 | 0.00720292 | 0.008183 |
| ADORA2A | 2.57285811 | 2.02921 |
| ADORA2B | 14.6340765 | 7.577345 |
| ADORA2BP | 0 | 0 |
| ADORA3 | 159.398907 | 182.6146 |
| ADPGK | 74.6937412 | 76.51822 |
| ADPRH | 4.53643372 | 4.299181 |

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| ADPRHL1 | 0.07740573 | 0.131901 |
| ADPRHL2 | 8.33055692 | 7.133046 |
| ADPRTL4 | 0 | 0 |
| ADRA1A | 0 | 0.006709 |
| ADRA1B | 0.00932801 | 0.03179 |
| ADRA1D | 0.00788647 | 0.008959 |
| ADRA2A | 0.00542449 | 0.012325 |
| ADRA2B | 0 | 0.036566 |
| ADRA2C | 0 | 0.012199 |
| ADRB1 | 0.05877102 | 0.033382 |
| ADRB2 | 4.96417062 | 0.986891 |
| ADRB3 | 0.00794308 | 0 |
| ADRBK1 | 419.993806 | 496.6078 |
| ADRBK2 | 13.0642157 | 10.14115 |
| ADRM1 | 37.4565149 | 43.0782 |
| ADSL | 6.28744721 | 6.730564 |
| ADSS | 38.7485334 | 35.65006 |
| ADSSL1 | 0.08094449 | 0.045977 |
| ADTB1L1 | 0 | 0 |
| ADTB1L2 | 0 | 0 |
| AEBP1 | 1.37558524 | 1.685595 |
| AEBP2 | 2.34399008 | 2.434931 |
| AEN | 0.19567863 | 0.153306 |
| AES | 195.309418 | 209.8153 |
| AF357530 | 0 | 0 |
| AF357532 | 0 | 0 |
| AF357533 | 0 | 0 |
| AF357534 | 0 | 0 |
| AFAP1 | 5.11697566 | 4.770874 |
| AFAP1L1 | 0.00506269 | 0.017254 |
| AFAP1L2 | 0 | 0.012015 |
| AFARP1 | 0 | 0 |
| AFF1 | 15.1647834 | 11.43572 |
| AFF2 | 0.81219633 | 0.813199 |
| AFF3 | 0.02048005 | 0.029082 |
| AFF4 | 14.5070394 | 13.86733 |
| AFG3L1 | 0 | 0 |
| AFG3L2 | 8.48676876 | 8.746319 |
| AFM | 0 | 0 |
| AFMID | 0.22183819 | 0.056003 |
| AFP | 0 | 0 |
| AFTPH | 31.0249332 | 31.19985 |
| AGA | 4.92410985 | 4.610844 |
| AGAP1 | 0.03248947 | 0.010545 |
| AGAP10 | 0.3768163 | 0.300805 |
| AGAP11 | 0.13994674 | 0.166552 |
| AGAP2 | 12.2423917 | 14.00002 |

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| AGAP3 | 6.37961079 | 8.848897 |
| AGAP4 | 0.74380027 | 0.638639 |
| AGAP5 | 1.39533318 | 1.15192 |
| AGAP6 | 2.45750622 | 2.162757 |
| AGAP7 | 1.53780313 | 1.401523 |
| AGAP8 | 0.03475261 | 0.02961 |
| AGAP9 | 0.26478983 | 0.277667 |
| AGBL1 | 0 | 0 |
| AGBL2 | 0.19221034 | 0.084524 |
| AGBL3 | 0.07141352 | 0.087887 |
| AGBL4 | 0.00703659 | 0.015987 |
| AGBL5 | 4.28871804 | 3.680633 |
| AGER | 29.9341224 | 26.45251 |
| AGFG1 | 6.08045449 | 5.956243 |
| AGFG2 | 6.71272259 | 9.279 |
| AGGF1 | 11.7508343 | 10.93709 |
| AGK | 1.94798793 | 2.433423 |
| AGKP1 | 0 | 0 |
| AGL | 4.22451277 | 3.386413 |
| AGMAT | 0.00957438 | 0.043507 |
| AGPAT1 | 16.0227838 | 18.20214 |
| AGPAT2 | 39.4157044 | 61.62605 |
| AGPAT3 | 18.2321337 | 24.06581 |
| AGPAT4 | 0.06404467 | 0.066693 |
| AGPAT5 | 1.3174148 | 0.830486 |
| AGPAT5P1 | 0 | 0 |
| AGPAT6 | 7.71039871 | 6.408477 |
| AGPAT9 | 1.76732261 | 1.970003 |
| AGPS | 5.35439609 | 5.278718 |
| AGR2 | 0 | 0 |
| AGR3 | 0 | 0 |
| AGRN | 2.50499913 | 2.718445 |
| AGRP | 0.05504013 | 0.031263 |
| AGT | 0 | 0 |
| AGTPBP1 | 28.4144097 | 25.31205 |
| AGTR1 | 0 | 0 |
| AGTR2 | 0 | 0 |
| AGTRAP | 16.7217085 | 15.22676 |
| AGXT | 0 | 0 |
| AGXT2 | 0 | 0 |
| AGXT2L1 | 0 | 0 |
| AGXT2L2 | 19.4168357 | 16.82518 |
| AHCTF1 | 6.8290354 | 6.15078 |
| AHCTF1P | 0 | 0 |
| AHCY | 0.81709817 | 0.769757 |
| AHCYL1 | 25.8242504 | 24.96594 |
| AHCYL2 | 2.13829962 | 1.952926 |

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| AHDC1 | 0.80269121 | 0.992762 |
| AHI1 | 0.56324217 | 0.461665 |
| AHNAK | 6.57948892 | 6.228256 |
| AHNAK2 | 0.1618481 | 0.174734 |
| AHR | 3.3451034 | 1.384465 |
| AHRR | 0.27112686 | 0.232058 |
| AHSA1 | 16.850301 | 14.85995 |
| AHSA2 | 32.7137227 | 30.08831 |
| AHSG | 0 | 0 |
| AICDA | 0 | 0.017097 |
| AIDA | 3.02160445 | 3.194216 |
| AIF1 | 2.01854015 | 1.769837 |
| AIF1L | 0.01241165 | 0.00705 |
| AIFM1 | 6.25965024 | 5.909718 |
| AIFM2 | 0.32446498 | 0.235902 |
| AIFM3 | 0.5997008 | 0.477906 |
| AIG1 | 0.78939871 | 0.62084 |
| AIM1 | 1.06894308 | 0.803233 |
| AIM1L | 0.30790234 | 0.149907 |
| AIM2 | 0.02833603 | 0.03219 |
| AIP | 25.2883745 | 22.27727 |
| AIPL1 | 0 | 0 |
| AIRE | 0.00708162 | 0.008045 |
| AJAP1 | 5.07726563 | 3.17556 |
| AK1 | 0.64022411 | 1.191093 |
| AK2 | 54.7942846 | 48.56202 |
| AK2P1 | 0 | 0 |
| AK2P2 | 0 | 0 |
| AK3 | 10.0192626 | 10.20677 |
| AK3L1 | 0 | 0.028222 |
| AK3L2 | 0 | 0 |
| AK3P1 | 0 | 0 |
| AK5 | 0 | 0 |
| AK7 | 0 | 0 |
| AKAP1 | 2.31554174 | 2.86525 |
| AKAP10 | 14.7472839 | 12.51983 |
| AKAP11 | 4.07406857 | 3.722793 |
| AKAP12 | 0.06219804 | 0.06794 |
| AKAP13 | 71.7208543 | 66.162 |
| AKAP14 | 0.02300364 | 0 |
| AKAP17A | 61.0520592 | 63.4332 |
| AKAP2 | 1.21439412 | 1.441343 |
| AKAP3 | 0.01392406 | 0.015818 |
| AKAP4 | 0 | 0 |
| AKAP5 | 0.05185838 | 0.058912 |
| AKAP6 | 0.0020242 | 0.0023 |
| AKAP7 | 0.14147131 | 0.153061 |

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| AKAP8 | 15.5440885 | 14.70738 |
| AKAP8L | 45.8300497 | 45.51051 |
| AKAP9 | 9.78471633 | 8.457433 |
| AKD2 | 0.52630803 | 0.648996 |
| AKIRIN1 | 39.5671122 | 41.43532 |
| AKIRIN2 | 25.6504685 | 24.05819 |
| AKNA | 55.741178 | 52.95659 |
| AKR1A1 | 3.424321 | 2.925342 |
| AKR1B1 | 0.48126652 | 0.341704 |
| AKR1B10 | 0 | 0 |
| AKR1B10L | 0 | 0 |
| AKR1B1P1 | 0 | 0 |
| AKR1B1P2 | 0 | 0 |
| AKR1B1P3 | 0 | 0 |
| AKR1B1P4 | 0 | 0 |
| AKR1B1P5 | 0 | 0 |
| AKR1B1P7 | 0 | 0 |
| AKR1B1P8 | 0 | 0 |
| AKR1C1 | 3.47626937 | 3.221632 |
| AKR1C2 | 0.48926871 | 0.495729 |
| AKR1C3 | 2.93736241 | 3.161264 |
| AKR1C4 | 0.10565493 | 0.080017 |
| AKR1CL1 | 0.04273441 | 0 |
| AKR1CL2 | 0.48319084 | 0.593419 |
| AKR1D1 | 0 | 0 |
| AKR1D1P | 0 | 0 |
| AKR7A2 | 1.97594887 | 1.47309 |
| AKR7A3 | 0.23719149 | 0.11548 |
| AKR7L | 0.00908614 | 0.072254 |
| AKT1 | 174.803398 | 189.6841 |
| AKT1S1 | 5.06468439 | 4.217322 |
| AKT2 | 21.2730168 | 19.21519 |
| AKT3 | 0.48528383 | 0.520319 |
| AKTIP | 2.09117828 | 1.70915 |
| ALAD | 14.8029427 | 16.72633 |
| ALAS1 | 15.240127 | 7.474519 |
| ALAS2 | 0.00985254 | 0.033578 |
| ALB | 0 | 0 |
| ALCAM | 7.6056618 | 6.846628 |
| ALDH16A1 | 19.4684005 | 20.85525 |
| ALDH18A1 | 0.20642831 | 0.227609 |
| ALDH1A1 | 0.01003117 | 0.022791 |
| ALDH1A2 | 0.17818077 | 0.118658 |
| ALDH1A3 | 0.10223988 | 0.266453 |
| ALDH1B1 | 0.05560418 | 0 |
| ALDH1L1 | 0.01345621 | 0 |
| ALDH1L2 | 0.00752517 | 0 |

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| ALDH2 | 11.6252559 | 11.56437 |
| ALDH3A1 | 0 | 0 |
| ALDH3A2 | 5.70820979 | 5.354958 |
| ALDH3B1 | 24.326644 | 20.21961 |
| ALDH3B2 | 0.44568385 | 0.346418 |
| ALDH4A1 | 0.3260257 | 0.241875 |
| ALDH5A1 | 0.0040668 | 0.00462 |
| ALDH6A1 | 3.36135616 | 1.181673 |
| ALDH7A1 | 0.00592096 | 0.006726 |
| ALDH7A1P1 | 0 | 0 |
| ALDH8A1 | 0.04135588 | 0.028189 |
| ALDH9A1 | 17.6360476 | 17.03486 |
| ALDOA | 181.570745 | 199.1883 |
| ALDOAP1 | 0 | 0 |
| ALDOAP2 | 0 | 0 |
| ALDOB | 0.01733333 | 0.009845 |
| ALDOC | 0.98058782 | 0.853556 |
| ALG1 | 1.53922098 | 1.092862 |
| ALG10 | 1.10235111 | 0.93158 |
| ALG10B | 1.09572154 | 1.03137 |
| ALG11 | 2.8829059 | 2.672723 |
| ALG12 | 5.3293681 | 5.108899 |
| ALG13 | 4.51561366 | 4.175844 |
| ALG14 | 0.09945757 | 0.090388 |
| ALG1L | 0.13059212 | 0.178026 |
| ALG2 | 10.72069 | 15.2257 |
| ALG3 | 2.22526689 | 1.993683 |
| ALG5 | 2.59785803 | 2.380641 |
| ALG6 | 2.08943514 | 2.111469 |
| ALG8 | 0.28950542 | 0.232959 |
| ALG9 | 0.99054072 | 0.913834 |
| ALK | 0.01014083 | 0 |
| ALKBH1 | 3.09889791 | 2.910565 |
| ALKBH2 | 0.22834528 | 0.23945 |
| ALKBH3 | 1.67505823 | 1.55276 |
| ALKBH4 | 6.64278572 | 6.438595 |
| ALKBH5 | 32.6829402 | 32.5725 |
| ALKBH6 | 15.0857288 | 14.52176 |
| ALKBH7 | 1.78052352 | 1.656895 |
| ALKBH8 | 0.35154229 | 0.299518 |
| ALLC | 0 | 0 |
| ALMS1 | 1.49855516 | 1.362276 |
| ALMS1P | 0 | 0 |
| ALOX12 | 3.32588993 | 3.059077 |
| ALOX12B | 0 | 0.019093 |
| ALOX12P1 | 0 | 0 |
| ALOX12P2 | 0 | 0 |

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| ALOX15 | 412.383196 | 374.0458 |
| ALOX15B | 0.01548257 | 0.026383 |
| ALOX15P | 0 | 0 |
| ALOX5 | 160.242 | 176.1457 |
| ALOX5AP | 961.529568 | 1185.993 |
| ALOXE3 | 0 | 0.007388 |
| ALPI | 0 | 0 |
| ALPK1 | 0.30634473 | 0.242287 |
| ALPK2 | 0.02878999 | 0.009812 |
| ALPK3 | 0.07125925 | 0.067824 |
| ALPL | 0.8143341 | 0.907476 |
| ALPP | 0.00733357 | 0 |
| ALPPL2 | 0 | 0 |
| ALS2 | 3.76550521 | 2.616997 |
| ALS2CL | 0.00424668 | 0.009649 |
| ALS2CR11 | 0.0099788 | 0 |
| ALS2CR12 | 0.24022981 | 0.213578 |
| ALS2CR4 | 0.02686698 | 0.017441 |
| ALS2CR8 | 0.57829298 | 0.513615 |
| ALX1 | 0.01624832 | 0 |
| ALX3 | 2.04847609 | 2.197818 |
| ALX4 | 0.02651366 | 0.01506 |
| AMAC1 | 0.03429907 | 0 |
| AMAC1L1 | 0.01750652 | 0 |
| AMAC1L2 | 0.01750652 | 0.059663 |
| AMAC1L3 | 0 | 0 |
| AMACR | 0.48124278 | 0.263924 |
| AMBN | 0 | 0 |
| AMBP | 0 | 0 |
| AMBRA1 | 6.96100446 | 6.985313 |
| AMD1 | 22.580259 | 21.51824 |
| AMDHD1 | 0.1476498 | 0.145368 |
| AMDHD2 | 27.6190738 | 27.02582 |
| AMDP1 (NC_000 | 0 | 0 |
| AMDP1 (NC_000 | 0 | 0 |
| AMELX | 0 | 0 |
| AMELY | 0 | 0 |
| AMFR | 22.5814629 | 22.25024 |
| AMH | 0.27089128 | 0.319573 |
| AMHR2 | 0.03400323 | 0.012876 |
| AMICA1 | 279.605521 | 138.9832 |
| AMIGO1 | 0.05956184 | 0.048331 |
| AMIGO2 | 0.03725065 | 0.048363 |
| AMIGO3 | 0 | 0 |
| AMMECR1 | 1.63793422 | 1.450656 |
| AMMECR1L | 7.21049431 | 6.654737 |
| AMN | 0.01350374 | 0.061362 |

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| AMN1 | 1.56444406 | 1.437635 |
| AMOT | 0.02846646 | 0.025871 |
| AMOTL1 | 0.00934563 | 0.002654 |
| AMOTL2 | 0.00843713 | 0 |
| AMPD1 | 0 | 0.010203 |
| AMPD2 | 156.30837 | 147.4891 |
| AMPD3 | 50.346924 | 62.43854 |
| AMPH | 0.10284479 | 0.131437 |
| AMT | 6.19862349 | 6.00819 |
| AMTN | 0 | 0 |
| AMY1A | 0 | 0.011807 |
| AMY1B | 0 | 0 |
| AMY1C | 0 | 0.012841 |
| AMY2A | 0 | 0 |
| AMY2B | 8.19419134 | 7.731723 |
| AMYP1 | 0 | 0 |
| AMZ1 | 0.3571687 | 0.443619 |
| AMZ2 | 9.33397268 | 8.275346 |
| ANAPC1 | 1.72546284 | 1.729324 |
| ANAPC10 | 2.67946238 | 2.111542 |
| ANAPC10P | 0 | 0 |
| ANAPC11 | 9.24309469 | 9.075638 |
| ANAPC13 | 10.3386147 | 7.790342 |
| ANAPC2 | 13.6508908 | 13.95952 |
| ANAPC4 | 13.8096766 | 13.48007 |
| ANAPC5 | 19.2860466 | 17.87012 |
| ANAPC7 | 6.76803326 | 5.676319 |
| ANG | 0.01588016 | 0.01804 |
| ANGEL1 | 0.92570783 | 0.795977 |
| ANGEL2 | 11.1887866 | 9.926012 |
| ANGPT1 | 0.00484678 | 0.005506 |
| ANGPT2 | 0.00398963 | 0 |
| ANGPT4 | 0.31723965 | 0.111845 |
| ANGPTL1 | 0 | 0 |
| ANGPTL2 | 0 | 0 |
| ANGPTL3 | 0 | 0 |
| ANGPTL4 | 0.09943667 | 0.062756 |
| ANGPTL5 | 0 | 0 |
| ANGPTL6 | 0.27173287 | 0.655972 |
| ANGPTL7 | 0 | 0 |
| ANK1 | 0.00679625 | 0.005147 |
| ANK2 | 0.00289585 | 0.001645 |
| ANK3 | 0.03478136 | 0.028874 |
| ANKAR | 0.64984596 | 0.674294 |
| ANKDD1A | 1.10766279 | 1.319704 |
| ANKDD1B | 0.01074365 | 0.012205 |
| ANKFN1 | 0.00866667 | 0 |

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| ANKFY1 | 7.86341425 | 6.754673 |
| ANKH | 3.11268151 | 3.058761 |
| ANKHD1 | 13.4282778 | 13.02206 |
| ANKHD1-EIF4EBF | 16.8096497 | 15.92341 |
| ANKIB1 | 5.38685506 | 4.972628 |
| ANKK1 | 0.01653585 | 0.009392 |
| ANKLE1 | 1.26138914 | 0.97263 |
| ANKLE2 | 33.7075012 | 44.58232 |
| ANKMY1 | 6.32921123 | 7.863497 |
| ANKMY2 | 7.18225306 | 7.4426 |
| ANKRA2 | 12.530974 | 10.99158 |
| ANKRD1 | 0 | 0 |
| ANKRD10 | 17.4607157 | 17.02113 |
| ANKRD11 | 33.9130634 | 38.39999 |
| ANKRD12 | 15.0820003 | 15.84022 |
| ANKRD13A | 115.11772 | 99.56609 |
| ANKRD13B | 0.04638428 | 0.015055 |
| ANKRD13C | 3.16845467 | 3.190582 |
| ANKRD13D | 127.573256 | 141.9329 |
| ANKRD16 | 0.10361232 | 0.181085 |
| ANKRD17 | 11.7741853 | 11.68396 |
| ANKRD18A | 2.2178828 | 2.114622 |
| ANKRD18B | 0.00614776 | 0.048888 |
| ANKRD19 | 0 | 0 |
| ANKRD2 | 0.01449023 | 0.065845 |
| ANKRD20A1 | 0.04790733 | 0.102044 |
| ANKRD20A2 | 0.02994208 | 0.027212 |
| ANKRD20A3 | 0.03182442 | 0.018077 |
| ANKRD20A4 | 0.32880102 | 0.115453 |
| ANKRD20A6P | 0 | 0 |
| ANKRD20B | 0 | 0 |
| ANKRD22 | 0.06857233 | 0.083892 |
| ANKRD23 | 0.95273576 | 0.943564 |
| ANKRD24 | 0.13055968 | 0.166116 |
| ANKRD26 | 0.13336616 | 0.119796 |
| ANKRD26L1 | 0 | 0 |
| ANKRD27 | 8.34780713 | 6.860331 |
| ANKRD28 | 6.91225583 | 8.511826 |
| ANKRD29 | 0.00924597 | 0.021007 |
| ANKRD30A | 0 | 0 |
| ANKRD30B | 0 | 0 |
| ANKRD31 | 0.00353902 | 0.008041 |
| ANKRD32 | 0.89880119 | 0.8206 |
| ANKRD33 | 0 | 0.012045 |
| ANKRD33B | 8.25438919 | 11.66108 |
| ANKRD34A | 0.32015316 | 0.204994 |
| ANKRD34B | 0.06202163 | 0.076863 |

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| ANKRD34C | 0.00951372 | 0 |
| ANKRD35 | 0.01250391 | 0 |
| ANKRD36 | 1.80274226 | 1.412218 |
| ANKRD36B | 0.57088886 | 0.504875 |
| ANKRD37 | 2.49872777 | 1.636667 |
| ANKRD39 | 2.12589457 | 2.547745 |
| ANKRD40 | 2.98056383 | 2.698462 |
| ANKRD42 | 1.1571318 | 1.31452 |
| ANKRD43 | 0.01824588 | 0.020728 |
| ANKRD44 | 27.1002028 | 21.32553 |
| ANKRD45 | 0 | 0.017885 |
| ANKRD46 | 2.20921074 | 2.269042 |
| ANKRD49 | 17.2065569 | 16.18671 |
| ANKRD5 | 0.14299205 | 0.156193 |
| ANKRD50 | 1.12669557 | 1.289174 |
| ANKRD52 | 5.90730186 | 5.350419 |
| ANKRD53 | 0.05950565 | 0.101399 |
| ANKRD54 | 2.65766751 | 2.564531 |
| ANKRD55 | 3.39524827 | 1.825613 |
| ANKRD56 | 0 | 0.016354 |
| ANKRD57 | 0.00451769 | 0.020529 |
| ANKRD57P1 | 0 | 0 |
| ANKRD58 | 1.17861069 | 1.231191 |
| ANKRD6 | 13.3160429 | 17.04633 |
| ANKRD60 | 0 | 0 |
| ANKRD62 | 0.01526894 | 0.008673 |
| ANKRD7 | 0 | 0 |
| ANKRD9 | 1.71978414 | 1.865565 |
| ANKS1A | 5.42599865 | 4.798835 |
| ANKS1B | 0 | 0.018556 |
| ANKS3 | 0.53708584 | 0.601165 |
| ANKS4B | 0.01447029 | 0.032877 |
| ANKS6 | 0.31771873 | 0.267358 |
| ANKZF1 | 20.5708585 | 17.75306 |
| ANLN | 0.15427392 | 0.145213 |
| ANO1 | 0.0087478 | 0.009938 |
| ANO10 | 0.22301924 | 0.270826 |
| ANO2 | 0.00565653 | 0 |
| ANO3 | 0.003542 | 0 |
| ANO4 | 0.00510324 | 0 |
| ANO5 | 0.00315648 | 0.003586 |
| ANO6 | 2.57997714 | 2.476101 |
| ANO7 | 0.07563069 | 0.144986 |
| ANO8 | 0.32931241 | 0.207196 |
| ANO9 | 0.24864739 | 0.340622 |
| ANP32A | 101.496014 | 127.1032 |
| ANP32B | 48.5129931 | 51.72891 |

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| ANP32C | 0.23858532 | 0.304916 |
| ANP32D | 0.10618854 | 0 |
| ANP32E | 9.54513336 | 8.846835 |
| ANPEP | 443.386788 | 607.3034 |
| ANTXR1 | 0.00590185 | 0.006705 |
| ANTXR2 | 14.9827395 | 10.572 |
| ANTXRL | 0 | 0 |
| ANUBL1 | 2.47189702 | 2.892035 |
| ANXA1 | 347.150908 | 200.6417 |
| ANXA10 | 0 | 0 |
| ANXA11 | 246.612499 | 229.6033 |
| ANXA13 | 0 | 0 |
| ANXA2 | 9.75844555 | 9.14805 |
| ANXA2P1 | 0 | 0 |
| ANXA2P2 | 0 | 0 |
| ANXA2P3 | 0 | 0 |
| ANXA3 | 0.18192499 | 0.177145 |
| ANXA4 | 4.75082175 | 4.649902 |
| ANXA5 | 44.1282118 | 43.34871 |
| ANXA6 | 18.5441255 | 14.89644 |
| ANXA7 | 47.3165343 | 46.05795 |
| ANXA8 | 0.0514822 | 0.011697 |
| ANXA8L1 | 0.0215203 | 0.012224 |
| ANXA8L2 | 0.06214384 | 0.070596 |
| ANXA9 | 3.68865455 | 2.592791 |
| AOAH | 13.0447198 | 11.74678 |
| AOC2 | 0.37869264 | 0.519826 |
| AOC3 | 0.17756117 | 0.237309 |
| AOF1 | 12.3764593 | 12.34629 |
| AOX1 | 0 | 0 |
| AOX2P | 0 | 0 |
| AP1B1 | 21.1310871 | 23.43887 |
| AP1G1 | 27.5109549 | 25.6669 |
| AP1G2 | 49.4343839 | 43.74231 |
| AP1GBP1 | 16.0102657 | 14.98324 |
| AP1M1 | 38.5508369 | 39.339 |
| AP1M2 | 0.16810659 | 0.368303 |
| AP1S1 | 0.21073963 | 0.12891 |
| AP1S2 | 6.16116794 | 6.559774 |
| AP1S3 | 0.16286488 | 0.101461 |
| AP2A1 | 29.816431 | 27.61908 |
| AP2A2 | 4.86916785 | 4.915696 |
| AP2B1 | 18.3438078 | 18.1739 |
| AP2M1 | 79.0183959 | 79.76888 |
| AP2S1 | 19.3952772 | 17.01479 |
| AP3B1 | 7.45855945 | 6.36377 |
| AP3B2 | 0 | 0.006447 |

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| AP3D1 | 14.1902114 | 12.42369 |
| AP3M1 | 6.38004522 | 5.533634 |
| AP3M2 | 3.29988846 | 3.963496 |
| AP3S1 | 34.6616201 | 29.83322 |
| AP3S2 | 6.86671577 | 5.67543 |
| AP4B1 | 17.2079299 | 11.44254 |
| AP4E1 | 2.83505286 | 2.584396 |
| AP4M1 | 5.6840429 | 5.971277 |
| AP4S1 | 1.1296105 | 1.148721 |
| APAF1 | 14.3706719 | 13.57176 |
| APBA1 | 0.0063868 | 0.010883 |
| APBA2 | 0.01155555 | 0.013127 |
| APBA3 | 9.40196681 | 8.179377 |
| APBB1 | 0.10082232 | 0.176209 |
| APBB1IP | 38.5185339 | 42.88813 |
| APBB2 | 0.01888644 | 0.005364 |
| APBB3 | 3.69258593 | 3.973473 |
| APC | 5.47034057 | 4.565895 |
| APC2 | 0.39353885 | 0.400007 |
| APCDD1 | 0 | 0 |
| APCDD1L | 0.01351242 | 0.007675 |
| APCS | 0 | 0 |
| APEH | 19.3405601 | 19.27783 |
| APEX1 | 1.86076895 | 1.450388 |
| APEX2 | 8.73130841 | 8.408718 |
| APH1A | 51.1561958 | 48.1303 |
| APH1B | 9.64266908 | 9.302262 |
| API5 | 15.1942612 | 15.21978 |
| API5L1 | 0 | 0 |
| APIP | 3.90780575 | 2.826752 |
| APITD1 | 0.09442514 | 0.062573 |
| APLF | 0.89039463 | 0.539882 |
| APLN | 0.08097047 | 0.053657 |
| APLNR | 0 | 0.006209 |
| APLP1 | 0.10298121 | 0.077992 |
| APLP2 | 106.158065 | 106.1108 |
| APOA1 | 0.02343961 | 0 |
| APOA1BP | 2.30697209 | 2.343766 |
| APOA2 | 0.22225508 | 0.201988 |
| APOA4 | 0 | 0 |
| APOA5 | 0 | 0 |
| APOB | 0 | 0 |
| APOB48R | 165.121786 | 126.4893 |
| APOBEC1 | 0 | 0 |
| APOBEC2 | 0.81548501 | 0.865986 |
| APOBEC3A | 39.0366429 | 36.25773 |
| APOBEC3B | 1.88899458 | 1.959325 |

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| APOBEC3C | 26.3422958 | 22.78305 |
| APOBEC3D | 3.21722004 | 3.206311 |
| APOBEC3F | 2.08039237 | 1.874552 |
| APOBEC3G | 4.75063828 | 4.937219 |
| APOBEC3H | 0.09181367 | 0.104302 |
| APOBEC4 | 0 | 0 |
| APOC1 | 0.04560809 | 0.051812 |
| APOC1P1 | 0 | 0 |
| APOC2 | 0.23329077 | 0.397533 |
| APOC3 | 0 | 0 |
| APOC4 | 0.13719629 | 0.077929 |
| APOD | 0 | 0 |
| APOE | 0.01781808 | 0.020242 |
| APOF | 0.02489678 | 0 |
| APOH | 0 | 0 |
| APOL1 | 1.83696445 | 1.45374 |
| APOL2 | 7.38317258 | 5.349988 |
| APOL3 | 0.0410952 | 0.075863 |
| APOL4 | 0.03694055 | 0.027977 |
| APOL5 | 0 | 0 |
| APOL6 | 0.7527562 | 0.734999 |
| APOLD1 | 0.11327364 | 0.079188 |
| APOM | 2.84574125 | 2.13428 |
| APOO | 0.43292982 | 0.555965 |
| APOOL | 0.80090089 | 0.611655 |
| APP | 0.29128292 | 0.276754 |
| APPBP2 | 6.04949612 | 5.731245 |
| APPL1 | 2.85148029 | 2.790077 |
| APPL2 | 25.1457751 | 37.10696 |
| APRT | 8.70193376 | 8.820028 |
| APT X | 4.68538625 | 3.984283 |
| AQP1 | 0 | 0 |
| AQP10 | 0.03521831 | 0.040009 |
| AQP11 | 0.18902441 | 0.033036 |
| AQP12A | 0 | 0 |
| AQP12B | 0.01887373 | 0.021441 |
| AQP2 | 0 | 0.005716 |
| AQP3 | 0.24206796 | 0.353562 |
| AQP4 | 0.01208816 | 0 |
| AQP5 | 0.02309207 | 0.013116 |
| AQP6 | 0.00792213 | 0 |
| AQP7 | 0.03347983 | 0.038034 |
| AQP7P1 | 0 | 0 |
| AQP7P2 | 0 | 0 |
| AQP7P3 | 0 | 0 |
| AQP8 | 0.03214882 | 0 |
| AQP9 | 0.354946 | 0.213472 |

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|-----------|------------|----------|
| AQR | 8.53015888 | 7.955434 |
| AR | 0.00935291 | 0.010625 |
| ARAF | 46.4958188 | 43.17503 |
| ARAF3P | 0 | 0 |
| ARAP1 | 167.044504 | 172.8392 |
| ARAP2 | 0.09427119 | 0.087622 |
| ARAP3 | 132.61302 | 162.1981 |
| ARC | 0.02143255 | 0.024348 |
| ARCN1 | 25.6952999 | 24.36091 |
| ARD1A | 73.850879 | 78.53381 |
| ARD1B | 0 | 0 |
| AREG | 8.74640181 | 4.167353 |
| AREGB | 1.83865242 | 0.657566 |
| ARF1 | 131.556586 | 135.3671 |
| ARF1P1 | 0 | 0 |
| ARF3 | 33.4312868 | 33.5418 |
| ARF4 | 36.8064127 | 40.96159 |
| ARF4P | 0 | 0 |
| ARF4P2 | 0 | 0 |
| ARF4P3 | 0 | 0 |
| ARF5 | 49.3170851 | 46.50025 |
| ARF6 | 34.8500599 | 40.63925 |
| ARFGAP1 | 24.3650253 | 23.27342 |
| ARFGAP2 | 30.3276316 | 26.6178 |
| ARFGAP3 | 13.1510365 | 12.12382 |
| ARFGEF1 | 21.6317188 | 23.63341 |
| ARFGEF2 | 5.04150262 | 4.172732 |
| ARFIP1 | 4.93153185 | 4.0182 |
| ARFIP2 | 5.82327156 | 5.189215 |
| ARFRP1 | 5.08949694 | 5.434662 |
| ARG1 | 0.07265145 | 0.033013 |
| ARG2 | 4.97772853 | 4.147641 |
| ARGFX | 0.02490661 | 0.009431 |
| ARGFXP1 | 0 | 0 |
| ARGFXP2 | 0 | 0 |
| ARGLU1 | 133.440607 | 128.2375 |
| ARHGAP1 | 16.3313913 | 13.82709 |
| ARHGAP10 | 6.14385489 | 5.619566 |
| ARHGAP11A | 1.6550031 | 1.908535 |
| ARHGAP11B | 0.95099825 | 0.822005 |
| ARHGAP12 | 0.13103035 | 0.080151 |
| ARHGAP15 | 27.0855031 | 28.28464 |
| ARHGAP16P | 0 | 0 |
| ARHGAP17 | 14.7539822 | 13.76139 |
| ARHGAP18 | 26.2350943 | 26.65657 |
| ARHGAP19 | 8.36702718 | 9.627496 |
| ARHGAP20 | 0 | 0 |

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| ARHGAP21 | 4.22736179 | 4.495746 |
| ARHGAP22 | 0.05353849 | 0.095575 |
| ARHGAP23 | 0.0603021 | 0.038058 |
| ARHGAP24 | 0.00370034 | 0.008407 |
| ARHGAP25 | 124.331584 | 99.66224 |
| ARHGAP26 | 28.1717575 | 26.81758 |
| ARHGAP27 | 50.1814611 | 55.18329 |
| ARHGAP28 | 0.00364517 | 0 |
| ARHGAP29 | 0.00230617 | 0.00262 |
| ARHGAP30 | 143.271594 | 126.5128 |
| ARHGAP4 | 156.094397 | 172.0909 |
| ARHGAP5 | 0.56482043 | 0.572009 |
| ARHGAP6 | 2.63913351 | 2.599414 |
| ARHGAP8 | 0 | 0 |
| ARHGAP9 | 206.938728 | 195.6652 |
| ARHGDIA | 48.7918663 | 42.3826 |
| ARHGDIB | 645.681689 | 611.3881 |
| ARHGDIG | 0.02231988 | 0 |
| ARHGEF1 | 120.920924 | 141.6528 |
| ARHGEF10 | 0.11657758 | 0.149522 |
| ARHGEF10L | 0 | 0.005315 |
| ARHGEF11 | 0.35098172 | 0.398721 |
| ARHGEF12 | 0.06417583 | 0.062849 |
| ARHGEF15 | 0 | 0.005735 |
| ARHGEF16 | 0 | 0 |
| ARHGEF17 | 1.80570806 | 3.851944 |
| ARHGEF18 | 30.3142621 | 29.74257 |
| ARHGEF19 | 2.85983373 | 4.778599 |
| ARHGEF2 | 44.2114698 | 50.68775 |
| ARHGEF3 | 0.54587618 | 0.470261 |
| ARHGEF4 | 0.009878 | 0.011222 |
| ARHGEF5 | 0.29116712 | 0.417815 |
| ARHGEF5L | 0.2740528 | 0.099625 |
| ARHGEF6 | 169.107949 | 155.0176 |
| ARHGEF7 | 7.71088448 | 6.564324 |
| ARHGEF9 | 0.47065878 | 0.337459 |
| ARID1A | 26.0802271 | 26.82867 |
| ARID1B | 5.49294404 | 5.873009 |
| ARID2 | 13.66423 | 14.69332 |
| ARID3A | 33.5079575 | 44.80891 |
| ARID3B | 21.5359674 | 25.55217 |
| ARID3C | 0 | 0.019278 |
| ARID4A | 23.2837691 | 23.65751 |
| ARID4B | 25.2636662 | 22.89695 |
| ARID5A | 56.9666379 | 91.61011 |
| ARID5B | 0.23806489 | 0.108178 |
| ARIH1 | 15.7880175 | 16.20239 |

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| ARIH2 | 28.5975535 | 33.00434 |
| ARIH2P | 0 | 0 |
| ARL1 | 2.87216931 | 2.486321 |
| ARL10 | 0.09616575 | 0.039726 |
| ARL11 | 4.94037831 | 4.285398 |
| ARL13A | 0.17681853 | 0.23739 |
| ARL13B | 0.84944915 | 0.7853 |
| ARL14 | 0.01631135 | 0 |
| ARL15 | 1.99596867 | 1.825491 |
| ARL16 | 7.62973899 | 6.88651 |
| ARL17 | 1.84517916 | 1.020495 |
| ARL17P1 | 0.24973319 | 0.175227 |
| ARL2 | 3.65470988 | 2.784154 |
| ARL2BP | 9.32123006 | 8.223302 |
| ARL3 | 4.49301 | 4.357335 |
| ARL4A | 0.08159084 | 0.064169 |
| ARL4C | 85.2708546 | 42.01491 |
| ARL4D | 0.17244751 | 0.27125 |
| ARL4P | 0 | 0 |
| ARL4P2 | 0 | 0 |
| ARL5A | 6.13045308 | 7.808449 |
| ARL5B | 5.39546665 | 5.190968 |
| ARL5C | 0 | 0 |
| ARL6 | 0.17364348 | 0.180823 |
| ARL6IP1 | 22.8826924 | 22.95671 |
| ARL6IP4 | 52.245637 | 51.82216 |
| ARL6IP5 | 109.898852 | 133.2762 |
| ARL6IP6 | 15.9972091 | 8.908041 |
| ARL8A | 47.0357724 | 59.05581 |
| ARL8B | 21.9339634 | 24.20518 |
| ARL9 | 0.05029983 | 0 |
| ARMC1 | 3.90504448 | 3.588627 |
| ARMC10 | 1.99936582 | 1.807964 |
| ARMC2 | 0.0554433 | 0.132967 |
| ARMC3 | 0 | 0 |
| ARMC4 | 0.0117723 | 0 |
| ARMC5 | 0.94035826 | 1.032483 |
| ARMC6 | 1.5247728 | 1.502602 |
| ARMC7 | 11.9268811 | 11.74033 |
| ARMC8 | 9.45575707 | 8.532838 |
| ARMC9 | 0.02843823 | 0.032306 |
| ARMCX1 | 0 | 0.011156 |
| ARMCX2 | 0.02181805 | 0.016524 |
| ARMCX3 | 11.0739478 | 9.595403 |
| ARMCX5 | 0.87129429 | 0.584147 |
| ARMCX6 | 6.46233116 | 5.131163 |
| ARMET | 12.0625327 | 10.18188 |

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| ARMETL1 | 0.23712779 | 0.161629 |
| ARMS2 | 0 | 0 |
| ARNT | 25.2922876 | 25.30118 |
| ARNT2 | 0.01923342 | 0.021849 |
| ARNTL | 23.3207368 | 21.87733 |
| ARNTL2 | 0.04357582 | 0.037127 |
| ARP11 | 0.19210962 | 0.121244 |
| ARPC1A | 28.7201005 | 24.88969 |
| ARPC1B | 232.814043 | 259.5934 |
| ARPC2 | 458.155016 | 459.1179 |
| ARPC3 | 305.319201 | 281.1364 |
| ARPC3B | 0 | 0 |
| ARPC4 | 109.201909 | 102.9501 |
| ARPC5 | 146.201368 | 133.465 |
| ARPC5L | 10.7075344 | 9.390926 |
| ARPM1 | 0.05243225 | 0.011913 |
| ARPP19 | 26.6217674 | 24.02855 |
| ARPP-21 | 0.01163764 | 0.013221 |
| ARR3 | 0.16062132 | 0.164222 |
| ARRB1 | 37.9486237 | 35.94687 |
| ARRB2 | 531.286776 | 484.5229 |
| ARRDC1 | 95.3113251 | 113.402 |
| ARRDC2 | 44.1803521 | 82.45315 |
| ARRDC3 | 11.1922874 | 9.023646 |
| ARRDC4 | 7.2841631 | 4.422298 |
| ARRDC5 | 1.84838074 | 2.376845 |
| ARSA | 17.2481415 | 16.34979 |
| ARSB | 11.2869516 | 10.80551 |
| ARSD | 2.89476783 | 2.619462 |
| ARSDP1 | 0 | 0 |
| ARSE | 0.00947087 | 0 |
| ARSEP1 | 0 | 0 |
| ARSF | 0 | 0 |
| ARSFP1 | 0 | 0 |
| ARSG | 5.44229686 | 6.294632 |
| ARSH | 0.01244839 | 0 |
| ARSI | 0.00663888 | 0.007542 |
| ARSJ | 0 | 0 |
| ARSK | 0.35827918 | 0.285622 |
| ART1 | 0.0160254 | 0.018205 |
| ART2P | 0 | 0 |
| ART3 | 0 | 0 |
| ART4 | 0 | 0 |
| ART5 | 0.02692104 | 0.015291 |
| ARTN | 0.02788505 | 0.010559 |
| ARV1 | 0.62566729 | 0.33059 |
| ARVCF | 0.15171301 | 0.21395 |

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|----------|------------|----------|
| ARVP6125 | 0 | 0 |
| ARX | 0.02193185 | 0.008305 |
| AS3MT | 0.89487627 | 0.590592 |
| ASAH1 | 191.073551 | 193.7258 |
| ASAH2 | 0 | 0 |
| ASAH2B | 0 | 0 |
| ASAH2C | 0.01457057 | 0.016552 |
| ASAM | 0.0477306 | 0.06326 |
| ASAP1 | 24.8670995 | 20.41817 |
| ASAP2 | 0.86425621 | 0.622509 |
| ASAP3 | 0.01012781 | 0.011505 |
| ASB1 | 5.30479593 | 5.442575 |
| ASB10 | 0 | 0.010318 |
| ASB11 | 0.01826701 | 0 |
| ASB12 | 0 | 0.06703 |
| ASB13 | 2.58286977 | 2.916664 |
| ASB14 | 0.29073368 | 0.217683 |
| ASB15 | 0.00776989 | 0 |
| ASB16 | 0.36369203 | 0.368494 |
| ASB17 | 0 | 0 |
| ASB18 | 0 | 0 |
| ASB2 | 19.537762 | 15.64466 |
| ASB3 | 8.36644832 | 9.331807 |
| ASB4 | 0 | 0 |
| ASB5 | 0 | 0 |
| ASB6 | 12.1881358 | 17.59057 |
| ASB7 | 6.15765246 | 5.766495 |
| ASB8 | 39.4194781 | 32.87059 |
| ASB9 | 0.02470662 | 0.028067 |
| ASCC1 | 8.41620907 | 7.190845 |
| ASCC2 | 43.0335073 | 52.30504 |
| ASCC3 | 0.47092573 | 0.398389 |
| ASCL1 | 0.0084643 | 0 |
| ASCL2 | 8.27822658 | 16.8578 |
| ASCL3 | 0.03234666 | 0 |
| ASCL4 | 0 | 0 |
| ASCL5 | 0.01768321 | 0.040177 |
| ASF1A | 5.99167463 | 4.959802 |
| ASF1B | 0.60731747 | 0.565736 |
| ASFMR1 | 0 | 0 |
| ASGR1 | 0 | 0.015881 |
| ASGR2 | 0.0136351 | 0 |
| ASH1L | 15.9377509 | 15.93693 |
| ASH2L | 20.8727102 | 21.9284 |
| ASH2LP1 | 0 | 0 |
| ASIP | 0 | 0 |
| ASL | 17.6616749 | 20.33447 |

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|-----------------|------------|----------|
| ASLL | 0 | 0 |
| ASMT (NC_0000: | 0.29946124 | 0.501337 |
| ASMT (NC_0000: | 0.5334122 | 0.892115 |
| ASMTL (NC_0000: | 2.47474232 | 1.224296 |
| ASMTL (NC_0000: | 9.45124623 | 10.66337 |
| ASMTLAS | 0 | 0 |
| ASNA1 | 10.315553 | 8.919596 |
| ASNS | 0.59355805 | 0.579321 |
| ASNSD1 | 23.9183348 | 21.10125 |
| ASNSL1 | 0 | 0 |
| ASPA | 0 | 0 |
| ASPDH | 0.06690638 | 0.11401 |
| ASPG | 0.02280405 | 0 |
| ASPH | 0.15376888 | 0.16595 |
| ASPHD1 | 0.01422553 | 0 |
| ASPHD2 | 1.80869886 | 1.665397 |
| ASPM | 0.04441427 | 0.035099 |
| ASPN | 0 | 0 |
| ASPRV1 | 1.70945502 | 1.437276 |
| ASPSCR1 | 3.04599206 | 2.954859 |
| ASRGL1 | 37.652639 | 29.32566 |
| ASS1 | 0.04550937 | 0.012925 |
| ASS1P6 | 0 | 0 |
| ASSP10 | 0 | 0 |
| ASSP11 | 0 | 0 |
| ASSP12 | 0 | 0 |
| ASSP13 | 0 | 0 |
| ASSP14 | 0 | 0 |
| ASSP2 | 0 | 0 |
| ASSP3 | 0 | 0 |
| ASSP4 | 0 | 0 |
| ASSP5 | 0 | 0 |
| ASSP7 | 0 | 0 |
| ASSP8 | 0 | 0 |
| ASSP9 | 0 | 0 |
| ASTE1 | 5.36296008 | 4.943913 |
| ASTL | 0.01622325 | 0.110579 |
| ASTN1 | 0 | 0 |
| ASTN2 | 0.01283859 | 0.004862 |
| ASXL1 | 14.394564 | 12.74914 |
| ASXL2 | 16.7698556 | 15.79467 |
| ASXL3 | 0.00275129 | 0.006251 |
| ASZ1 | 0 | 0 |
| ATAD1 | 5.17663884 | 4.487315 |
| ATAD2 | 5.71632089 | 5.9187 |
| ATAD2B | 6.08332561 | 6.264169 |
| ATAD3A | 1.61051941 | 1.280703 |

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| ATAD3B | 5.89366038 | 5.281623 |
| ATAD3C | 0.1906936 | 0.167115 |
| ATAD4 | 0.04554223 | 0.051737 |
| ATAD5 | 2.41732388 | 2.199189 |
| ATCAY | 0 | 0.009486 |
| ATCD1 | 0 | 0 |
| ATE1 | 4.72125695 | 4.59722 |
| ATF1 | 10.9221379 | 10.95836 |
| ATF2 | 8.4360281 | 7.8297 |
| ATF3 | 0.3124246 | 0.172663 |
| ATF4 | 141.45826 | 188.4348 |
| ATF4C | 0 | 0 |
| ATF4P1 | 0 | 0 |
| ATF4P2 | 0 | 0 |
| ATF5 | 2.32684052 | 1.681156 |
| ATF6 | 6.29576831 | 5.606473 |
| ATF6B | 34.1018652 | 31.29899 |
| ATF7 | 8.55591135 | 7.54117 |
| ATF7IP | 8.71958051 | 6.344082 |
| ATF7IP2 | 0.01169048 | 0.039842 |
| ATG10 | 0.53799856 | 0.46331 |
| ATG12 | 14.0376839 | 12.68675 |
| ATG12P | 0 | 0 |
| ATG16L1 | 10.1761367 | 7.28829 |
| ATG16L2 | 194.217206 | 183.2973 |
| ATG2A | 42.020621 | 40.31157 |
| ATG2B | 7.15304529 | 6.630329 |
| ATG3 | 32.5537129 | 27.44288 |
| ATG3P | 0 | 0 |
| ATG4A | 7.01768962 | 5.682429 |
| ATG4B | 31.8427114 | 32.20122 |
| ATG4C | 2.02457531 | 1.427555 |
| ATG4D | 11.4552568 | 11.46384 |
| ATG5 | 7.52478707 | 7.171423 |
| ATG7 | 6.45620438 | 5.376632 |
| ATG9A | 11.4516446 | 11.28101 |
| ATG9B | 0.0413794 | 0.047008 |
| ATHL1 | 14.4565235 | 14.49332 |
| ATIC | 0.32756114 | 0.255829 |
| ATL1 | 1.28316885 | 1.156388 |
| ATL2 | 41.7884696 | 44.55055 |
| ATL3 | 2.13422021 | 1.672805 |
| ATM | 3.97206365 | 2.988545 |
| ATMIN | 7.97199663 | 7.9028 |
| ATN1 | 15.3158046 | 15.93962 |
| ATOH1 | 0 | 0.022427 |
| ATOH7 | 0 | 0 |

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| ATOH8 | 0.02592519 | 0.049086 |
| ATOX1 | 6.87945389 | 7.619789 |
| ATP10A | 0.0281141 | 0.036501 |
| ATP10B | 0.01111569 | 0 |
| ATP10D | 6.85650488 | 3.810678 |
| ATP11A | 10.7204257 | 11.18055 |
| ATP11B | 61.4966523 | 61.39602 |
| ATP11C | 5.07934605 | 4.770775 |
| ATP12A | 0 | 0 |
| ATP13A1 | 18.8667956 | 17.02903 |
| ATP13A2 | 0.59456016 | 0.78302 |
| ATP13A3 | 23.9059849 | 26.0233 |
| ATP13A4 | 0.05411292 | 0.055885 |
| ATP13A5 | 0 | 0 |
| ATP1A1 | 73.9209961 | 89.39007 |
| ATP1A2 | 0 | 0.013114 |
| ATP1A3 | 0.14210305 | 0.18161 |
| ATP1A4 | 0 | 0 |
| ATP1B1 | 0.1815824 | 0.184567 |
| ATP1B2 | 0.02524049 | 0.028674 |
| ATP1B3 | 24.5654838 | 24.55539 |
| ATP1B3P1 | 0 | 0 |
| ATP1B4 | 0.00539803 | 0 |
| ATP1BL1 | 0 | 0 |
| ATP2A1 | 0.2140588 | 0.236419 |
| ATP2A2 | 11.7554737 | 12.44094 |
| ATP2A3 | 774.785827 | 936.3042 |
| ATP2B1 | 8.64303956 | 5.929074 |
| ATP2B2 | 0.01173027 | 0.007995 |
| ATP2B3 | 0.01279302 | 0.003633 |
| ATP2B4 | 0.90172633 | 0.911748 |
| ATP2C1 | 10.7922893 | 9.435091 |
| ATP2C2 | 0.04347927 | 0.021168 |
| ATP4A | 0 | 0.013422 |
| ATP4B | 0.04238978 | 0.016052 |
| ATP5A1 | 35.7864466 | 33.0569 |
| ATP5AP2 | 0 | 0 |
| ATP5AP3 | 0 | 0 |
| ATP5B | 89.0182623 | 81.97141 |
| ATP5C1 | 29.9446133 | 28.02547 |
| ATP5C2 | 0 | 0 |
| ATP5D | 6.58624825 | 7.554026 |
| ATP5E | 216.431596 | 190.1015 |
| ATP5EP1 | 0 | 0 |
| ATP5EP2 | 0 | 0 |
| ATP5F1 | 18.3425146 | 17.19141 |
| ATP5G1 | 5.14241841 | 4.473836 |

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| ATP5G2 | 19.7837419 | 17.1854 |
| ATP5G3 | 8.31942905 | 7.305735 |
| ATP5GP1 | 0 | 0 |
| ATP5GP2 | 0 | 0 |
| ATP5GP3 | 0 | 0 |
| ATP5GP4 | 0 | 0 |
| ATP5H | 32.6872911 | 29.79879 |
| ATP5HP1 | 0 | 0 |
| ATP5I | 42.2842767 | 37.5527 |
| ATP5J | 11.129149 | 10.87362 |
| ATP5J2 | 57.8515167 | 50.42412 |
| ATP5J2LP | 0 | 0 |
| ATP5J2P2 | 0 | 0 |
| ATP5J2P4 | 0 | 0 |
| ATP5J2P5 | 0 | 0 |
| ATP5J2P6 | 0 | 0 |
| ATP5JP1 | 0 | 0 |
| ATP5L | 52.1704774 | 55.98184 |
| ATP5L2 | 0 | 0 |
| ATP5LP1 | 0 | 0 |
| ATP5LP2 | 0 | 0 |
| ATP5LP3 | 0 | 0 |
| ATP5O | 32.0858028 | 29.42669 |
| ATP5S | 2.40225351 | 2.79276 |
| ATP5SL | 9.02150726 | 7.552325 |
| ATP6 | 0 | 0 |
| ATP6AP1 | 51.2561308 | 50.9109 |
| ATP6AP1L | 0.05547581 | 0 |
| ATP6AP2 | 43.3408761 | 37.6041 |
| ATP6VOA1 | 18.938462 | 16.21042 |
| ATP6VOA2 | 32.0702549 | 25.83939 |
| ATP6VOA4 | 0.01252626 | 0.01423 |
| ATP6VOB | 141.416952 | 146.3489 |
| ATP6VOC | 154.69873 | 178.6029 |
| ATP6VOD1 | 93.065417 | 99.14466 |
| ATP6VOD2 | 0 | 0 |
| ATP6VOE1 | 128.225913 | 117.8549 |
| ATP6VOE2 | 0.21588165 | 0.192692 |
| ATP6V1A | 13.1864738 | 10.54326 |
| ATP6V1B1 | 0.02168678 | 0 |
| ATP6V1B2 | 34.9155874 | 25.73691 |
| ATP6V1C1 | 8.31945512 | 7.704874 |
| ATP6V1C2 | 0.0778716 | 0.051604 |
| ATP6V1D | 11.1488424 | 10.13221 |
| ATP6V1E1 | 63.539567 | 59.49193 |
| ATP6V1E2 | 0.08499376 | 0 |
| ATP6V1EL1 | 0 | 0 |

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|-----------|------------|----------|
| ATP6V1F | 79.202513 | 77.32415 |
| ATP6V1G1 | 28.0990301 | 29.81561 |
| ATP6V1G2 | 0.31656709 | 0.179813 |
| ATP6V1G3 | 0 | 0 |
| ATP6V1GP1 | 0 | 0 |
| ATP6V1GP2 | 0 | 0 |
| ATP6V1H | 11.0220898 | 10.964 |
| ATP7A | 10.2451424 | 9.235501 |
| ATP7B | 0.03482063 | 0.061133 |
| ATP8 | 0 | 0 |
| ATP8A1 | 2.13932239 | 2.387366 |
| ATP8A2 | 0 | 0.009543 |
| ATP8B1 | 0.01084153 | 0.016422 |
| ATP8B2 | 24.5812572 | 22.35416 |
| ATP8B3 | 0.38002563 | 0.319094 |
| ATP8B4 | 3.61471253 | 2.818923 |
| ATP9A | 0.00554758 | 0.022057 |
| ATP9B | 7.13548979 | 6.412478 |
| ATPAF1 | 1.84754179 | 1.994762 |
| ATPAF2 | 10.6887797 | 15.34372 |
| ATPBD3 | 1.03779517 | 0.759517 |
| ATPBD4 | 0.09337675 | 0.053039 |
| ATPGD1 | 0.04266937 | 0.060591 |
| ATPIF1 | 13.4887785 | 12.29877 |
| ATQL3 | 0 | 0 |
| ATQL4 | 0 | 0 |
| ATR | 1.90606564 | 1.618201 |
| ATRIP | 0.85475638 | 0.628305 |
| ATRN | 1.34373321 | 1.310385 |
| ATRN1 | 0.00240785 | 0 |
| ATRX | 8.99366804 | 7.882684 |
| ATXN1 | 6.76266051 | 7.049206 |
| ATXN10 | 12.389547 | 15.15491 |
| ATXN1L | 14.8987268 | 14.15639 |
| ATXN2 | 6.56426751 | 6.659587 |
| ATXN2L | 36.5235083 | 35.00998 |
| ATXN3 | 4.00583729 | 3.605365 |
| ATXN3L | 0 | 0 |
| ATXN7 | 15.7963825 | 13.36374 |
| ATXN7L1 | 1.13457783 | 0.823275 |
| ATXN7L2 | 3.36334859 | 3.200685 |
| ATXN7L3 | 33.7312864 | 31.53839 |
| ATXN8OS | 0 | 0 |
| AUH | 5.57409593 | 4.752956 |
| AUP1 | 66.9321671 | 62.64067 |
| AURKA | 11.5404055 | 10.30614 |
| AURKAIP1 | 30.5939646 | 34.17216 |

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| AURKAPS1 | 0 | 0 |
| AURKAPS2 | 0 | 0 |
| AURKB | 2.0072727 | 2.415565 |
| AURKC | 0.6787578 | 0.936311 |
| AUTS2 | 0.08193324 | 0.089498 |
| AVEN | 1.38704012 | 1.965724 |
| AVIL | 0.84535635 | 0.845802 |
| AVL9 | 20.2479388 | 18.58633 |
| AVP | 2.00402993 | 2.083677 |
| AVPI1 | 0.54375856 | 0.669195 |
| AVPR1A | 0 | 0 |
| AVPR1B | 0.02371724 | 0.026943 |
| AVPR2 | 0.57253219 | 0.802628 |
| AWAT1 | 0 | 0 |
| AWAT2 | 0 | 0 |
| AXIN1 | 51.8559787 | 57.80778 |
| AXIN2 | 0.06952164 | 0.056413 |
| AXL | 0.05770093 | 0.070591 |
| AZFP | 0 | 0 |
| AZGP1 | 0 | 0 |
| AZGP1P1 | 0 | 0 |
| AZGP1P2 | 0 | 0 |
| AZI1 | 1.35366182 | 1.234185 |
| AZI2 | 7.03903986 | 6.575737 |
| AZIN1 | 26.3058419 | 28.94998 |
| AZU1 | 0.32275727 | 0.628556 |
| B2M | 4533.0784 | 4172.271 |
| B3GALNT1 | 0.01732381 | 0.01312 |
| B3GALNT2 | 1.18260946 | 1.117571 |
| B3GALT1 | 0 | 0 |
| B3GALT2 | 0 | 0 |
| B3GALT4 | 8.01855742 | 7.961703 |
| B3GALT5 | 0 | 0 |
| B3GALT6 | 1.74646501 | 1.385388 |
| B3GALTL | 4.33974803 | 5.559025 |
| B3GAT1 | 0.01725273 | 0 |
| B3GAT2 | 0 | 0 |
| B3GAT3 | 9.85653518 | 11.26344 |
| B3GAT3P | 0 | 0 |
| B3GNT1 | 0.01015716 | 0.011539 |
| B3GNT2 | 11.4725342 | 10.7218 |
| B3GNT3 | 0 | 0 |
| B3GNT4 | 0 | 0.031762 |
| B3GNT5 | 0.10199045 | 0.005793 |
| B3GNT6 | 0 | 0 |
| B3GNT7 | 0.4545225 | 0.782845 |
| B3GNT8 | 45.9550457 | 51.98899 |

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| B3GNT9 | 0.86277698 | 1.041938 |
| B3GNTL1 | 8.37668645 | 9.792377 |
| B4GALNT1 | 0.00698516 | 0.007935 |
| B4GALNT2 | 0 | 0 |
| B4GALNT3 | 0.01834671 | 0.006947 |
| B4GALNT4 | 0.01347778 | 0.022966 |
| B4GALT1 | 19.7534962 | 20.41526 |
| B4GALT2 | 0.03636028 | 0.092938 |
| B4GALT3 | 10.7769654 | 9.607966 |
| B4GALT4 | 4.50286525 | 3.556273 |
| B4GALT5 | 43.0601268 | 39.83883 |
| B4GALT6 | 0.10482093 | 0.089309 |
| B4GALT7 | 2.90223074 | 2.634705 |
| B9D1 | 0.04531321 | 0 |
| B9D2 | 4.17947755 | 2.834237 |
| bA255A11.4 | 0 | 0 |
| bA291L22.4 | 0 | 0 |
| bA327L3.4 | 0 | 0 |
| bA345E19.2 | 0 | 0 |
| BA393J16.4 | 0 | 0 |
| bA395L14.12 | 0 | 0 |
| BA775A3.1 | 0 | 0 |
| BAALC | 0.0073799 | 0.008384 |
| BAAT | 0.00595956 | 0 |
| BACE1 | 0.37114123 | 0.286539 |
| BACE2 | 16.641834 | 14.86734 |
| BACH1 | 25.5747264 | 22.11387 |
| BACH2 | 1.07921666 | 0.857946 |
| BAD | 6.33851889 | 5.600512 |
| BAG1 | 15.1490901 | 15.34811 |
| BAG2 | 0.97292082 | 0.732958 |
| BAG3 | 0.02453364 | 0.102192 |
| BAG4 | 8.56623246 | 7.607769 |
| BAG5 | 10.2012833 | 9.804169 |
| BAGE2 | 0 | 0 |
| BAGE3 | 0.01341757 | 0.015243 |
| BAHCC1 | 5.80650418 | 7.396755 |
| BAHD1 | 10.9586292 | 11.72091 |
| BAI1 | 0.37273561 | 0.354302 |
| BAI2 | 0.02329677 | 0.017644 |
| BAI3 | 0.01491952 | 0.004237 |
| BAIAP2 | 0.45511233 | 0.443852 |
| BAIAP2L1 | 0.46607877 | 0.623601 |
| BAIAP2L2 | 0.15683231 | 0.155893 |
| BAIAP3 | 9.19480536 | 9.737816 |
| BAK1 | 21.8498537 | 18.65718 |
| BAMBI | 3.74406996 | 5.001464 |

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| BANF1 | 3.96050071 | 3.441778 |
| BANF1P1 | 0 | 0 |
| BANF2 | 0 | 0 |
| BANK1 | 5.00518699 | 5.148926 |
| BANP | 15.5044563 | 15.8572 |
| BAP1 | 23.9870582 | 23.57863 |
| BARD1 | 2.07269277 | 2.437069 |
| BARHL1 | 0 | 0 |
| BARHL2 | 0.01405437 | 0 |
| BARX1 | 0.01418713 | 0 |
| BARX2 | 0 | 0 |
| BASE | 0 | 0 |
| BASP1 | 384.399679 | 322.8677 |
| BAT1 | 124.397411 | 111.475 |
| BAT2 | 48.6191772 | 48.41623 |
| BAT2D1 | 34.2613275 | 32.02316 |
| BAT2L | 43.0751289 | 53.39926 |
| BAT2L2P1 | 0 | 0 |
| BAT3 | 45.7538365 | 43.18365 |
| BAT4 | 12.0588087 | 8.813693 |
| BAT5 | 45.9553662 | 45.71074 |
| BATF | 1.63108306 | 0.964542 |
| BATF2 | 0.28492271 | 0.26787 |
| BATF3 | 0.06429765 | 0.097391 |
| BAX | 43.6911734 | 42.16026 |
| BAZ1A | 21.9025514 | 22.61462 |
| BAZ1B | 14.9446783 | 15.25732 |
| BAZ2A | 46.1597091 | 43.52469 |
| BAZ2B | 13.7690749 | 10.33702 |
| BBC3 | 3.98427513 | 6.897609 |
| BBOX1 | 0.01114811 | 0 |
| BBS1 | 1.22907721 | 0.99226 |
| BBS10 | 1.80736867 | 1.299915 |
| BBS12 | 0.36943399 | 0.272426 |
| BBS2 | 9.25742184 | 7.172323 |
| BBS4 | 8.94335908 | 10.45692 |
| BBS5 | 0.02663963 | 0.007566 |
| BBS7 | 0.79610476 | 0.515965 |
| BBS9 | 0.91027808 | 0.903343 |
| BBX | 9.43174752 | 8.35536 |
| BCAM | 0.00687552 | 0 |
| BCAN | 0.00519657 | 0.011807 |
| BCAP29 | 5.62022037 | 6.064152 |
| BCAP31 | 27.8924336 | 28.89006 |
| BCAR1 | 0 | 0.007425 |
| BCAR3 | 0.76913857 | 0.617653 |
| BCAR4 | 0 | 0 |

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| BCAS1 | 0.12705955 | 0.089354 |
| BCAS2 | 10.4320469 | 11.20988 |
| BCAS3 | 4.19457974 | 3.904742 |
| BCAS4 | 0.04700149 | 0.124587 |
| BCAT1 | 0.00762985 | 0.011557 |
| BCAT2 | 0.26614343 | 0.241875 |
| BCCIP | 2.48090179 | 2.060648 |
| BCDIN3D | 1.14915777 | 1.144293 |
| BCHE | 0 | 0.009761 |
| BCKDHA | 15.9120277 | 14.05484 |
| BCKDHB | 0.04531321 | 0.064346 |
| BCKDK | 23.1239956 | 25.28042 |
| BCL10 | 5.89845074 | 5.300471 |
| BCL11A | 0.15530395 | 0.195674 |
| BCL11B | 0.03497048 | 0.036671 |
| BCL2 | 0.26361064 | 0.248954 |
| BCL2A1 | 255.046406 | 223.6285 |
| BCL2L1 | 6.86055153 | 7.364342 |
| BCL2L10 | 0 | 0 |
| BCL2L11 | 9.6568685 | 12.40283 |
| BCL2L12 | 3.34365102 | 2.794107 |
| BCL2L13 | 6.75033643 | 6.015614 |
| BCL2L14 | 0.00771855 | 0 |
| BCL2L15 | 0.11415321 | 0.100862 |
| BCL2L2 | 2.25945616 | 2.151268 |
| BCL2L7P1 | 0 | 0 |
| BCL2L7P2 | 0 | 0 |
| BCL3 | 84.450994 | 111.6475 |
| BCL6 | 19.0493664 | 15.10641 |
| BCL6B | 0.0357878 | 0.020328 |
| BCL7A | 0.05094991 | 0.05788 |
| BCL7B | 43.5767957 | 49.74751 |
| BCL7C | 12.1054936 | 11.52498 |
| BCL8 | 0 | 0 |
| BCL9 | 1.83527897 | 1.590312 |
| BCL9L | 19.5312829 | 38.23469 |
| BCLAF1 | 32.5700122 | 30.57084 |
| BCMO1 | 0 | 0 |
| BCO2 | 0.09095817 | 0.10333 |
| BCOR | 27.6701584 | 53.45293 |
| BCORL1 | 6.43861767 | 6.190992 |
| BCORP1 | 0 | 0 |
| BCR | 4.00959466 | 4.896327 |
| BCRL4 | 0 | 0 |
| BCS1L | 1.5298046 | 1.29264 |
| BCYRN1 | 0 | 0 |
| BCYRN1P1 | 0 | 0 |

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| BDH1 | 0.14248666 | 0.161867 |
| BDH2 | 0.28801823 | 0.286294 |
| BDH2P1 | 0 | 0 |
| BDKRB1 | 0 | 0 |
| BDKRB2 | 0.00500961 | 0 |
| BDNF | 0.00272067 | 0 |
| BDNFOS | 0 | 0 |
| BDP1 | 3.98104912 | 3.1207 |
| BDP1P | 0 | 0 |
| BEAN | 0.66107835 | 0.776892 |
| BECN1 | 29.4531234 | 29.24616 |
| BECN1L1 | 0.01622325 | 0 |
| BEGAIN | 6.30838587 | 5.709908 |
| BEND2 | 0.00453915 | 0.005157 |
| BEND3 | 0.29736325 | 0.306016 |
| BEND4 | 0.00479866 | 0.016354 |
| BEND5 | 0.01582041 | 0 |
| BEND6 | 0.00778716 | 0.026539 |
| BEND7 | 0.02038655 | 0.023159 |
| BEST1 | 3.19734323 | 3.017438 |
| BEST2 | 0.01100227 | 0 |
| BEST3 | 0 | 0 |
| BEST4 | 0.07021819 | 0.068373 |
| BET1 | 1.86830775 | 1.43576 |
| BET1L | 40.2938092 | 40.78083 |
| BET3L | 0 | 0 |
| BEX1 | 0.87808807 | 0.858977 |
| BEX2 | 0.33833866 | 0.274541 |
| BEX4 | 15.9377607 | 15.35605 |
| BEX5 | 0.04906728 | 0 |
| BEYLA | 0 | 0 |
| BFAR | 7.82009345 | 8.789343 |
| BFSP1 | 0.03881002 | 0.011022 |
| BFSP2 | 0 | 0 |
| BGLAP | 1.33869148 | 1.118217 |
| BGN | 0 | 0 |
| BHLHA15 | 0 | 0 |
| BHLHA9 | 0.05939359 | 0 |
| BHLHB9 | 0.01964525 | 0.011159 |
| BHLHE22 | 0 | 0.021244 |
| BHLHE23 | 0.01989151 | 0.022597 |
| BHLHE40 | 330.156581 | 445.719 |
| BHLHE41 | 0.04449805 | 0.025275 |
| BHMT | 0 | 0 |
| BHMT2 | 0 | 0.035703 |
| BICC1 | 0 | 0 |
| BICD1 | 0.00585827 | 0.006655 |

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| BICD2 | 14.5532255 | 14.89469 |
| BID | 25.711992 | 26.15245 |
| BIK | 7.45845951 | 7.693519 |
| BIN1 | 0.07095162 | 0.125381 |
| BIN2 | 99.8679447 | 84.56474 |
| BIN3 | 30.7874948 | 29.39804 |
| BIRC2 | 26.2100439 | 25.39747 |
| BIRC3 | 4.57177305 | 2.42551 |
| BIRC5 | 0.03114864 | 0 |
| BIRC6 | 13.1510412 | 11.45658 |
| BIRC7 | 0 | 0.018067 |
| BIRC8 | 0 | 0 |
| BIVM | 0.21804855 | 0.161009 |
| BLCAP | 15.3856436 | 14.41524 |
| BLID | 0 | 0 |
| BLK | 0.21918299 | 0.239773 |
| BLM | 1.24907554 | 1.455894 |
| BLMH | 3.0011333 | 5.514229 |
| BLNK | 0.11533369 | 0.104817 |
| BLOC1S1 | 67.523659 | 58.16776 |
| BLOC1S2 | 22.3356632 | 21.66932 |
| BLOC1S3 | 10.5045788 | 9.636723 |
| BLVRA | 21.4532285 | 18.95784 |
| BLVRB | 0.44212145 | 0.418547 |
| BLZF1 | 11.1748092 | 9.655025 |
| BLZF2P | 0 | 0 |
| BMF | 3.13527901 | 2.354447 |
| BMI1 | 8.88801065 | 7.770304 |
| BMP1 | 2.37891371 | 2.44962 |
| BMP10 | 0.01327357 | 0.060316 |
| BMP15 | 0.01783319 | 0.020259 |
| BMP2 | 0.00667471 | 0.03033 |
| BMP2K | 32.9742848 | 32.5726 |
| BMP2KL | 0 | 0 |
| BMP3 | 0.00366678 | 0 |
| BMP4 | 0.01013758 | 0 |
| BMP5 | 0.00968017 | 0 |
| BMP6 | 0.06771443 | 0.03077 |
| BMP6P1 | 0 | 0 |
| BMP7 | 0.00521591 | 0 |
| BMP8A | 0.16069841 | 0.097646 |
| BMP8B | 0.05572576 | 0.012661 |
| BMPER | 0 | 0 |
| BMPR1A | 0.03488716 | 0.079265 |
| BMPR1B | 0.00756307 | 0.008592 |
| BMPR2 | 2.73311883 | 3.468981 |
| BMS1 | 1.75298174 | 1.730246 |

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| BMS1P1 | 0 | 0 |
| BMS1P2 | 0 | 0 |
| BMS1P3 | 0 | 0 |
| BMS1P4 | 0 | 0 |
| BMS1P5 | 0 | 0 |
| BMS1P6 | 0 | 0 |
| BMS1P7 | 0 | 0 |
| BMX | 0.17227459 | 0.240185 |
| BNC1 | 0 | 0 |
| BNC2 | 0.13663375 | 0.184783 |
| BNIP1 | 0.3489052 | 0.327429 |
| BNIP2 | 39.5623583 | 38.32242 |
| BNIP3 | 2.59047428 | 2.086444 |
| BNIP3L | 22.9536542 | 22.14491 |
| BNIP3P | 0 | 0 |
| BNIPL | 0.38068148 | 0.332662 |
| BOC | 0.00491131 | 0.011159 |
| BOD1 | 9.73039142 | 6.781999 |
| BOD1L | 40.9995948 | 43.70327 |
| BOD1P | 0 | 0 |
| BOK | 0.04041778 | 0.045915 |
| BOLA1 | 3.7045799 | 2.982155 |
| BOLA2 | 24.5399511 | 22.51485 |
| BOLA2B | 2.9917467 | 1.982558 |
| BOLA3 | 0.15180744 | 0.21557 |
| BOLL | 0 | 0 |
| BOP1 | 1.00120624 | 1.227974 |
| BPESC1 | 0 | 0 |
| BPGM | 4.61239454 | 4.888168 |
| BPHL | 0.08149353 | 0.030859 |
| BPI | 0.21652102 | 0.181242 |
| BPIL1 | 0 | 0 |
| BPIL2 | 0.01379615 | 0 |
| BPIL3 | 0 | 0 |
| BPNT1 | 1.97352761 | 1.766392 |
| BPTF | 19.4128676 | 18.62666 |
| BPY2 | 0 | 0 |
| BPY2B | 0 | 0 |
| BPY2C | 0 | 0 |
| BRAF | 9.4389253 | 7.959001 |
| BRAFPS2 | 0 | 0 |
| BRAP | 8.51771356 | 8.50158 |
| BRCA1 | 0.14479105 | 0.126527 |
| BRCA1P1 | 0 | 0 |
| BRCA2 | 0.28991542 | 0.237047 |
| BRCC3 | 4.87753045 | 5.155708 |
| BRD1 | 18.7256854 | 20.29301 |

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| BRD2 | 83.8299509 | 73.68448 |
| BRD3 | 17.5446607 | 16.57679 |
| BRD4 | 21.2369102 | 22.21222 |
| BRD7 | 18.4782514 | 19.85368 |
| BRD7P | 0 | 0 |
| BRD7P2 | 0 | 0 |
| BRD7P3 | 0 | 0 |
| BRD8 | 14.4521012 | 11.86584 |
| BRD9 | 15.4511047 | 13.24431 |
| BRDT | 0 | 0 |
| BRE | 4.25702994 | 3.610012 |
| BREA2 | 0 | 0 |
| BRF1 | 4.40512853 | 4.380093 |
| BRF2 | 2.80621202 | 2.415077 |
| BRI3 | 89.3106651 | 87.27369 |
| BRI3BP | 22.595619 | 21.87591 |
| BRI3P1 | 0 | 0 |
| BRI3P2 | 0 | 0 |
| BRIP1 | 0.4515631 | 0.434465 |
| BRMS1 | 25.4879099 | 24.78267 |
| BRMS1L | 0.73230642 | 0.619312 |
| BRP44 | 19.9162507 | 17.71948 |
| BRP44L | 27.9973482 | 33.74206 |
| BRPF1 | 12.0913441 | 13.62482 |
| BRPF3 | 12.085289 | 15.58897 |
| BRS3 | 0.01487992 | 0 |
| BRSK1 | 0.01352981 | 0.01537 |
| BRSK2 | 0.04797566 | 0.034063 |
| BRUNOL4 | 0.01553979 | 0.011769 |
| BRUNOL5 | 0 | 0 |
| BRUNOL6 | 3.06104083 | 2.788938 |
| BRWD1 | 6.98151837 | 7.709474 |
| BRWD2 | 7.90452747 | 7.235307 |
| BRWD3 | 9.207419 | 7.631326 |
| BSCL2 | 3.8759025 | 3.823487 |
| BSDC1 | 78.6173973 | 94.04659 |
| BSG | 97.7956987 | 119.9434 |
| BSN | 0.02634918 | 0.028436 |
| BSND | 0.01534696 | 0 |
| BSPH1 | 0 | 0 |
| BSPRY | 0.05372742 | 0.04069 |
| BST1 | 0.93761611 | 0.855345 |
| BST2 | 6.51583739 | 4.731236 |
| BSX | 0.02995061 | 0 |
| BTAF1 | 25.1198947 | 23.2303 |
| BTBD1 | 25.4077346 | 28.21863 |
| BTBD10 | 8.00605704 | 6.847446 |

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| BTBD11 | 2.40096403 | 2.331536 |
| BTBD12 | 3.46530205 | 4.093842 |
| BTBD16 | 0 | 0 |
| BTBD17 | 0.01252999 | 0 |
| BTBD2 | 9.8701802 | 9.460985 |
| BTBD3 | 0.36286945 | 0.383466 |
| BTBD6 | 3.74953526 | 3.978817 |
| BTBD7 | 7.96393991 | 7.485405 |
| BTBD8 | 0.01457057 | 0.049657 |
| BTBD9 | 5.12957139 | 5.065286 |
| BTC | 0 | 0.018054 |
| BTD | 4.37815608 | 3.689758 |
| BTF3 | 35.3676704 | 34.19261 |
| BTF3L1 | 0 | 0 |
| BTF3L2 | 0 | 0 |
| BTF3L3 | 0 | 0 |
| BTF3L4 | 13.9242384 | 13.89309 |
| BTF3L4P | 0 | 0 |
| BTF3P1 | 0 | 0 |
| BTF3P2 | 0 | 0 |
| BTG1 | 168.975374 | 123.8759 |
| BTG2 | 22.0564405 | 26.58011 |
| BTG3 | 1.78068989 | 1.363579 |
| BTG4 | 0 | 0.023909 |
| BTK | 78.8510306 | 70.53014 |
| BTLA | 0.08501689 | 0.074293 |
| BTN1A1 | 0.05160495 | 0.066999 |
| BTN2A1 | 42.7260661 | 34.91845 |
| BTN2A2 | 2.94295656 | 2.46556 |
| BTN2A3 | 0.60891078 | 0.474718 |
| BTN3A1 | 44.7697575 | 37.73403 |
| BTN3A2 | 32.7679673 | 27.03053 |
| BTN3A3 | 11.6465596 | 8.338252 |
| BTNL2 | 0.01536939 | 0.03492 |
| BTNL3 | 0 | 0.020038 |
| BTNL8 | 0.04828969 | 0.010972 |
| BTNL9 | 0 | 0 |
| BTRC | 2.32889632 | 2.146187 |
| BUB1 | 0.13208375 | 0.095486 |
| BUB1B | 0.05618742 | 0.038298 |
| BUB3 | 16.2558366 | 16.1164 |
| BUD13 | 15.1386218 | 13.53816 |
| BUD31 | 42.5143078 | 43.21304 |
| BVES | 0.01129787 | 0.004278 |
| BXDC1 | 0.68681271 | 0.553712 |
| BXDC1P | 0 | 0 |
| BXDC2 | 2.60958546 | 2.138965 |

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| BXDC5 | 7.95236569 | 7.606954 |
| BYSL | 0.08452394 | 0.108023 |
| BZRAP1 | 3.39400326 | 3.805971 |
| BZRPL1 | 0.54867774 | 0.398916 |
| BZW1 | 38.3986566 | 41.40199 |
| BZW1L1 | 0 | 0 |
| BZW1P1 | 0 | 0 |
| BZW2 | 1.61994737 | 1.235437 |
| C10orf10 | 0 | 0 |
| C10orf104 | 28.527327 | 27.4361 |
| C10orf105 | 0.00868815 | 0 |
| C10orf107 | 0 | 0 |
| C10orf108 | 0 | 0 |
| C10orf11 | 2.25271403 | 2.292544 |
| C10orf110 | 0 | 0 |
| C10orf111 | 0.02453364 | 0.027871 |
| C10orf112 | 0.00369189 | 0.004194 |
| C10orf113 | 0 | 0 |
| C10orf114 | 0 | 0 |
| C10orf115 | 0 | 0 |
| C10orf116 | 0 | 0 |
| C10orf118 | 10.6114782 | 10.12939 |
| C10orf119 | 17.5896898 | 18.88394 |
| C10orf12 | 5.01462239 | 4.966211 |
| C10orf120 | 0.01976065 | 0 |
| C10orf122 | 0 | 0.025906 |
| C10orf125 | 0.71179506 | 0.80861 |
| C10orf128 | 78.7354842 | 64.68884 |
| C10orf129 | 0.01227398 | 0.013943 |
| C10orf131 | 0.76878336 | 0.85304 |
| C10orf134 | 0.00806495 | 0 |
| C10orf137 | 8.30176859 | 7.49572 |
| C10orf139 | 0 | 0 |
| C10orf140 | 0.01593311 | 0.00362 |
| C10orf141 | 0 | 0 |
| C10orf18 | 4.54135215 | 4.103513 |
| C10orf2 | 0.0642084 | 0.079573 |
| C10orf25 | 0.0819701 | 0.193999 |
| C10orf26 | 31.3562488 | 30.97023 |
| C10orf27 | 0 | 0.015089 |
| C10orf28 | 12.3058374 | 10.35895 |
| C10orf32 | 4.89583682 | 4.433704 |
| C10orf35 | 0.01954027 | 0.11099 |
| C10orf4 | 2.11129365 | 1.841144 |
| C10orf40 | 0 | 0 |
| C10orf41 | 0 | 0 |
| C10orf46 | 20.9223879 | 13.55143 |

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| C10orf47 | 0.02523292 | 0 |
| C10orf50 | 0 | 0 |
| C10orf51 | 0 | 0 |
| C10orf53 | 0 | 0 |
| C10orf54 | 153.233 | 135.5307 |
| C10orf55 | 0.00977468 | 0.011104 |
| C10orf57 | 1.22888722 | 0.84466 |
| C10orf58 | 2.48984182 | 2.049638 |
| C10orf62 | 0 | 0 |
| C10orf67 | 0 | 0.008116 |
| C10orf68 | 0.01546549 | 0.035138 |
| C10orf71 | 0 | 0 |
| C10orf72 | 0.01045646 | 0.023757 |
| C10orf75 | 0 | 0 |
| C10orf76 | 5.31144669 | 4.880693 |
| C10orf78 | 1.4988627 | 1.562139 |
| C10orf79 | 0.00783796 | 0.004452 |
| C10orf81 | 0.00647132 | 0.007352 |
| C10orf82 | 0 | 0 |
| C10orf84 | 7.62415291 | 6.82185 |
| C10orf85 | 0 | 0 |
| C10orf88 | 2.03646711 | 1.771846 |
| C10orf90 | 0 | 0 |
| C10orf91 | 0.02848961 | 0 |
| C10orf92 | 0.01530785 | 0.008695 |
| C10orf93 | 0 | 0 |
| C10orf95 | 0.38644243 | 0.422745 |
| C10orf96 | 0.01237512 | 0 |
| C10orf97 | 7.37435819 | 6.536977 |
| C10orf99 | 0 | 0.028847 |
| C11orf1 | 0.66238339 | 0.703931 |
| C11orf10 | 41.4879402 | 43.23728 |
| C11orf16 | 0 | 0 |
| C11orf17 | 0.21067466 | 0.23933 |
| C11orf2 | 21.5111753 | 20.95419 |
| C11orf20 | 0 | 0 |
| C11orf21 | 59.9435718 | 59.94508 |
| C11orf24 | 4.47113365 | 3.931612 |
| C11orf30 | 10.7587431 | 10.34111 |
| C11orf31 | 32.6591308 | 33.24349 |
| C11orf34 | 0.01364395 | 0.046499 |
| C11orf35 | 1.54849401 | 1.747691 |
| C11orf36 | 0 | 0 |
| C11orf40 | 0 | 0 |
| C11orf41 | 0.0018063 | 0.002052 |
| C11orf42 | 0.202876 | 0.251422 |
| C11orf44 | 0 | 0 |

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| C11orf45 | 0 | 0 |
| C11orf46 | 1.62738437 | 1.659813 |
| C11orf48 | 16.3105598 | 14.65677 |
| C11orf49 | 0.79550306 | 0.914212 |
| C11orf51 | 11.3946805 | 9.721944 |
| C11orf52 | 0 | 0 |
| C11orf53 | 0 | 0 |
| C11orf54 | 11.9642051 | 11.51282 |
| C11orf57 | 5.75512935 | 5.497214 |
| C11orf58 | 24.3312331 | 23.603 |
| C11orf59 | 34.9831584 | 31.06406 |
| C11orf60 | 1.29457783 | 0.997948 |
| C11orf61 | 0.68037026 | 0.4616 |
| C11orf63 | 0.29662293 | 0.370004 |
| C11orf64 | 0 | 0 |
| C11orf65 | 0.02035366 | 0 |
| C11orf66 | 2.56808419 | 2.698971 |
| C11orf67 | 1.08464009 | 0.805649 |
| C11orf68 | 20.2705755 | 22.93583 |
| C11orf70 | 0.01667354 | 0.018941 |
| C11orf71 | 3.76961112 | 3.544004 |
| C11orf73 | 4.69695168 | 4.453512 |
| C11orf74 | 0.12820324 | 0.029128 |
| C11orf75 | 1.9603536 | 2.740914 |
| C11orf76 | 0 | 0 |
| C11orf79 | 25.1469219 | 25.68291 |
| C11orf80 | 0.54305633 | 0.555229 |
| C11orf82 | 0.18282896 | 0.107198 |
| C11orf83 | 3.25235588 | 3.321523 |
| C11orf84 | 40.3459054 | 56.04048 |
| C11orf85 | 0 | 0 |
| C11orf86 | 0 | 0 |
| C11orf87 | 0 | 0 |
| C11orf88 | 0.02644696 | 0 |
| C11orf9 | 0.09136865 | 0.111781 |
| C11orf90 | 0.03486788 | 0 |
| C11orf91 | 0.14500228 | 0.054908 |
| C11orf92 | 0.00772564 | 0.030718 |
| C12orf10 | 5.43370693 | 4.206925 |
| C12orf11 | 3.16510359 | 2.311462 |
| C12orf12 | 0.00709836 | 0.016128 |
| C12orf23 | 1.02973571 | 1.035092 |
| C12orf24 | 0.92616514 | 0.942213 |
| C12orf26 | 1.58621484 | 1.511716 |
| C12orf27 | 0 | 0 |
| C12orf28 | 0.00675621 | 0.007675 |
| C12orf29 | 0.88520009 | 0.689793 |

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| C12orf30 | 0.40006684 | 0.330533 |
| C12orf32 | 0 | 0 |
| C12orf33 | 0 | 0 |
| C12orf34 | 0.7544791 | 0.839608 |
| C12orf35 | 9.71282544 | 7.479911 |
| C12orf36 | 0 | 0 |
| C12orf39 | 0 | 0.040969 |
| C12orf4 | 0.93592728 | 0.78804 |
| C12orf40 | 0 | 0 |
| C12orf41 | 10.5875357 | 10.10639 |
| C12orf42 | 0.01438121 | 0.016337 |
| C12orf43 | 3.75608777 | 3.85645 |
| C12orf44 | 10.4029299 | 10.27209 |
| C12orf45 | 0.13521113 | 0.076801 |
| C12orf47 | 0 | 0 |
| C12orf48 | 0.3560263 | 0.254655 |
| C12orf49 | 5.20519004 | 5.009418 |
| C12orf5 | 0.21462241 | 0.165446 |
| C12orf50 | 0 | 0 |
| C12orf51 | 5.02464968 | 4.918071 |
| C12orf52 | 4.78548378 | 3.861987 |
| C12orf53 | 0.11626911 | 0.088056 |
| C12orf54 | 0 | 0 |
| C12orf55 | 0.01692861 | 0.032052 |
| C12orf56 | 0 | 0 |
| C12orf57 | 5.92426453 | 6.202211 |
| C12orf59 | 0.2638532 | 0.40251 |
| C12orf60 | 0.05596805 | 0.084774 |
| C12orf61 | 0.14982421 | 0.255304 |
| C12orf62 | 18.9262963 | 16.65201 |
| C12orf63 | 0 | 0 |
| C12orf64 | 0 | 0 |
| C12orf65 | 4.52282354 | 2.990579 |
| C12orf66 | 0.14555998 | 0.055119 |
| C12orf67 | 0 | 0 |
| C12orf68 | 0.02690955 | 0.03057 |
| C12orf69 | 0 | 0.011352 |
| C12orf70 | 0 | 0 |
| C12orf71 | 0.34824565 | 0.296709 |
| C12orf72 | 0.1412874 | 0.100315 |
| C12orf73 | 0.54611249 | 0.578093 |
| C12orf74 | 0 | 0 |
| C12orf75 | 0.13852707 | 0.139884 |
| C12orf76 | 1.53422251 | 1.227395 |
| C13orf1 | 0.32164883 | 0.357941 |
| C13orf15 | 5.25633274 | 9.14015 |
| C13orf16 | 0.38551383 | 0.067377 |

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| C13orf18 | 1.9344573 | 1.302933 |
| C13orf23 | 6.50784054 | 6.402383 |
| C13orf26 | 0.02106747 | 0.023933 |
| C13orf27 | 14.6976728 | 11.95291 |
| C13orf28 | 0 | 0 |
| C13orf29 | 0 | 0 |
| C13orf3 | 0.01456048 | 0.049623 |
| C13orf30 | 0 | 0 |
| C13orf31 | 6.35380881 | 8.546145 |
| C13orf33 | 0.51023816 | 0.699564 |
| C13orf34 | 2.72957777 | 2.86828 |
| C13orf35 | 0 | 0 |
| C13orf36 | 0 | 0 |
| C13orf37 | 2.34486485 | 2.109257 |
| C13orf38 | 0 | 0 |
| C13orf39 | 0 | 0 |
| C14orf1 | 3.40580149 | 2.776975 |
| C14orf100 | 13.3821715 | 11.852 |
| C14orf101 | 5.72476765 | 4.671712 |
| C14orf102 | 24.8019398 | 20.4855 |
| C14orf104 | 2.17845987 | 2.507009 |
| C14orf105 | 0 | 0 |
| C14orf106 | 30.567495 | 31.14014 |
| C14orf109 | 7.20912596 | 9.697845 |
| C14orf115 | 0 | 0 |
| C14orf118 | 15.4743092 | 15.22379 |
| C14orf119 | 16.0651296 | 14.65066 |
| C14orf126 | 0.29016682 | 0.27618 |
| C14orf128 | 0 | 0 |
| C14orf129 | 7.64096246 | 8.495814 |
| C14orf132 | 0 | 0 |
| C14orf133 | 11.0723764 | 9.143992 |
| C14orf135 | 12.7317683 | 14.91908 |
| C14orf138 | 30.606942 | 39.38901 |
| C14orf139 | 0 | 0 |
| C14orf142 | 5.22057537 | 8.753811 |
| C14orf143 | 0.6050455 | 0.790442 |
| C14orf145 | 0.278325 | 0.251873 |
| C14orf147 | 2.04943044 | 1.809764 |
| C14orf148 | 0.43233906 | 0.581618 |
| C14orf149 | 0.6242133 | 0.34591 |
| C14orf151 | 0 | 0 |
| C14orf153 | 5.34571168 | 4.293518 |
| C14orf156 | 12.0220406 | 10.22788 |
| C14orf159 | 3.80486813 | 2.924569 |
| C14orf162 | 0 | 0 |
| C14orf165 | 0 | 0 |

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| C14orf166 | 19.6849911 | 17.47636 |
| C14orf166B | 0.01212534 | 0 |
| C14orf167 | 0 | 0 |
| C14orf169 | 0.00853994 | 0.029105 |
| C14orf174 | 0.13497743 | 0.082566 |
| C14orf176 | 0.02000507 | 0 |
| C14orf177 | 0.01638763 | 0 |
| C14orf178 | 0 | 0.080421 |
| C14orf179 | 2.35628709 | 2.599565 |
| C14orf180 | 0 | 0 |
| C14orf181 | 0.19479172 | 0.138304 |
| C14orf182 | 0.08610523 | 0.088924 |
| C14orf19 | 0 | 0 |
| C14orf2 | 17.2129202 | 14.52298 |
| C14orf21 | 7.44668537 | 6.545944 |
| C14orf23 | 0 | 0 |
| C14orf25 | 0 | 0 |
| C14orf28 | 1.72919962 | 1.29864 |
| C14orf33 | 0 | 0 |
| C14orf34 | 0 | 0 |
| C14orf37 | 0.32745486 | 0.906735 |
| C14orf38 | 0 | 0 |
| C14orf39 | 0 | 0.008645 |
| C14orf4 | 28.7330987 | 48.85826 |
| C14orf43 | 29.0894899 | 29.72227 |
| C14orf45 | 0.37230947 | 0.29222 |
| C14orf48 | 0 | 0 |
| C14orf49 | 2.5872392 | 2.610952 |
| C14orf50 | 0.22446973 | 0.238001 |
| C14orf53 | 0 | 0 |
| C14orf55 | 0 | 0 |
| C14orf56 | 0 | 0 |
| C14orf64 | 0 | 0 |
| C14orf68 | 0.01213233 | 0.027565 |
| C14orf70 | 0 | 0 |
| C14orf72 | 0 | 0 |
| C14orf73 | 0 | 0.009254 |
| C14orf79 | 0.41160701 | 0.328578 |
| C14orf80 | 2.07942834 | 2.049795 |
| C14orf83 | 13.1124053 | 14.41444 |
| C14orf85 | 0 | 0 |
| C14orf86 | 0 | 0 |
| C14orf93 | 4.32570334 | 3.45551 |
| C14orf99 | 0 | 0 |
| C15orf17 | 12.0880846 | 10.89296 |
| C15orf2 | 0.00261087 | 0.008898 |
| C15orf21 | 0 | 0 |

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| C15orf23 | 1.83053791 | 1.456839 |
| C15orf24 | 27.3488888 | 28.96126 |
| C15orf26 | 0 | 0.015165 |
| C15orf27 | 0.00876421 | 0.039825 |
| C15orf28 | 0 | 0 |
| C15orf29 | 3.31494269 | 3.486877 |
| C15orf32 | 0 | 0 |
| C15orf33 | 0.10533733 | 0.179497 |
| C15orf34 | 0 | 0 |
| C15orf37 | 2.3428803 | 2.374744 |
| C15orf38 | 0 | 0 |
| C15orf39 | 110.398423 | 109.3525 |
| C15orf40 | 2.16987401 | 2.10801 |
| C15orf41 | 0.12132744 | 0.121615 |
| C15orf42 | 0.01260889 | 0.010743 |
| C15orf43 | 0.90697506 | 0.318468 |
| C15orf44 | 2.34345691 | 2.055035 |
| C15orf48 | 0.38978258 | 0.651175 |
| C15orf49 | 0 | 0 |
| C15orf5 | 0 | 0 |
| C15orf50 | 0 | 0 |
| C15orf51 | 0 | 0 |
| C15orf52 | 0.51704869 | 0.69947 |
| C15orf53 | 0 | 0 |
| C15orf54 | 0.00682641 | 0.007755 |
| C15orf55 | 0.00554027 | 0.006294 |
| C15orf56 | 0 | 0 |
| C15orf57 | 8.26429194 | 7.621145 |
| C15orf58 | 0.66920002 | 0.954697 |
| C15orf59 | 0 | 0 |
| C15orf60 | 0 | 0.025794 |
| C15orf61 | 4.71732561 | 5.579945 |
| C15orf62 | 0 | 0 |
| C16orf10 | 0 | 0 |
| C16orf11 | 0 | 0 |
| C16orf13 | 2.80337746 | 2.672857 |
| C16orf14 | 19.8931978 | 26.03739 |
| C16orf3 | 0 | 0.024029 |
| C16orf35 | 0.5697731 | 0.599325 |
| C16orf38 | 0 | 0.016797 |
| C16orf42 | 11.7001426 | 9.34376 |
| C16orf45 | 1.56208693 | 1.927534 |
| C16orf46 | 0.14168013 | 0.160951 |
| C16orf48 | 1.18933927 | 1.226868 |
| C16orf5 | 19.8674809 | 21.48963 |
| C16orf52 | 0 | 0 |
| C16orf53 | 6.70062181 | 6.456785 |

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| C16orf54 | 68.9433389 | 71.05774 |
| C16orf55 | 0.32642066 | 0.370819 |
| C16orf57 | 16.4452788 | 18.69269 |
| C16orf58 | 4.41836665 | 4.197202 |
| C16orf59 | 0.01291482 | 0.014671 |
| C16orf61 | 7.83409592 | 7.689042 |
| C16orf62 | 2.789558 | 2.327957 |
| C16orf63 | 2.50435053 | 1.645419 |
| C16orf65 | 0.04090531 | 0.092938 |
| C16orf67 | 0 | 0 |
| C16orf68 | 6.45491052 | 5.963671 |
| C16orf7 | 14.9525362 | 18.69798 |
| C16orf70 | 5.28408529 | 5.380665 |
| C16orf71 | 0.00776989 | 0.07944 |
| C16orf72 | 17.7227846 | 15.60726 |
| C16orf73 | 0.02451934 | 0 |
| C16orf74 | 2.99692913 | 4.282297 |
| C16orf75 | 0.2349199 | 0.266873 |
| C16orf78 | 0 | 0 |
| C16orf79 | 11.8199959 | 10.26102 |
| C16orf80 | 7.90890932 | 7.265362 |
| C16orf81 | 0 | 0 |
| C16orf82 | 0 | 0 |
| C16orf84 | 1.71263528 | 2.718294 |
| C16orf86 | 1.11008446 | 1.110498 |
| C16orf87 | 2.81249908 | 2.832363 |
| C16orf88 | 0.28033775 | 0.159234 |
| C16orf89 | 0.02246296 | 0 |
| C16orf90 | 0.02325811 | 0.079265 |
| C16orf91 | 1.09936371 | 0.981274 |
| C16orf92 | 0 | 0 |
| C16orf93 | 15.0131669 | 19.34054 |
| C17orf100 | 0.36413338 | 0.19917 |
| C17orf101 | 1.03093819 | 0.824762 |
| C17orf102 | 0 | 0 |
| C17orf103 | 10.9387953 | 10.23576 |
| C17orf28 | 0.01887373 | 0.007147 |
| C17orf37 | 19.3243426 | 16.97934 |
| C17orf39 | 4.53594687 | 4.232947 |
| C17orf42 | 2.79500292 | 2.586513 |
| C17orf44 | 0 | 0 |
| C17orf45 | 91.8668353 | 94.26935 |
| C17orf46 | 0.03274974 | 0.037204 |
| C17orf47 | 0.02024587 | 0 |
| C17orf48 | 6.67602735 | 5.475638 |
| C17orf49 | 24.5295528 | 24.10175 |
| C17orf50 | 0 | 0.023167 |

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| C17orf51 | 0.02344615 | 0.026635 |
| C17orf53 | 0.14945054 | 0.223392 |
| C17orf54 | 0 | 0 |
| C17orf55 | 0.24069402 | 0.313643 |
| C17orf56 | 32.6645204 | 32.41323 |
| C17orf57 | 0.22998963 | 0.255196 |
| C17orf58 | 0.82004168 | 0.626144 |
| C17orf59 | 11.9846583 | 13.09064 |
| C17orf60 | 0.99488948 | 1.469273 |
| C17orf61 | 2.06498786 | 2.505804 |
| C17orf62 | 61.3501801 | 61.29242 |
| C17orf63 | 4.89939807 | 5.110514 |
| C17orf64 | 0 | 0 |
| C17orf65 | 4.41606641 | 4.178834 |
| C17orf66 | 0 | 0.012131 |
| C17orf67 | 0 | 0 |
| C17orf68 | 11.9129668 | 10.7098 |
| C17orf69 | 0 | 0 |
| C17orf70 | 2.6192805 | 2.652521 |
| C17orf71 | 6.21232222 | 5.287487 |
| C17orf72 | 0 | 0 |
| C17orf73 | 0 | 0 |
| C17orf74 | 0.01274262 | 0 |
| C17orf75 | 1.46387086 | 0.868282 |
| C17orf76 | 0.6341572 | 0.728989 |
| C17orf77 | 0 | 0 |
| C17orf78 | 0 | 0 |
| C17orf79 | 0.42634076 | 0.866696 |
| C17orf80 | 3.44641455 | 3.027073 |
| C17orf81 | 5.01563717 | 4.614524 |
| C17orf82 | 0 | 0.015611 |
| C17orf85 | 21.6122904 | 20.31209 |
| C17orf86 | 0 | 0 |
| C17orf87 | 0.03156957 | 0.071727 |
| C17orf88 | 0 | 0 |
| C17orf89 | 3.60434245 | 3.198899 |
| C17orf90 | 9.42748711 | 8.167166 |
| C17orf91 | 8.36095032 | 7.071249 |
| C17orf93 | 0 | 0 |
| C17orf95 | 18.99741 | 22.73323 |
| C17orf96 | 0.01301072 | 0.01478 |
| C17orf97 | 0.44478973 | 0.163877 |
| C17orf98 | 0.03714723 | 0 |
| C17orf99 | 0.04161784 | 0.018911 |
| C18orf1 | 0.15071922 | 0.214024 |
| C18orf10 | 5.58978533 | 6.165019 |
| C18orf12 | 0 | 0 |

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| C18orf16 | 0 | 0 |
| C18orf18 | 0 | 0 |
| C18orf19 | 0.80571524 | 0.719168 |
| C18orf2 | 0 | 0 |
| C18orf20 | 0 | 0 |
| C18orf21 | 12.8701737 | 13.2644 |
| C18orf22 | 0.1942639 | 0.169759 |
| C18orf24 | 0.10808087 | 0.081854 |
| C18orf25 | 19.4171721 | 17.04081 |
| C18orf26 | 0.02074527 | 0 |
| C18orf32 | 53.327546 | 50.56528 |
| C18orf34 | 0 | 0 |
| C18orf45 | 0.40028185 | 0.311129 |
| C18orf51 | 0 | 0.011697 |
| C18orf54 | 0.47299669 | 0.608659 |
| C18orf55 | 2.20670032 | 2.320001 |
| C18orf56 | 0 | 0 |
| C18orf58 | 0 | 0 |
| C18orf62 | 0 | 0 |
| C18orf8 | 24.9536717 | 22.93982 |
| C19orf10 | 12.0030434 | 13.97654 |
| C19orf12 | 0.69170859 | 0.66224 |
| C19orf15 | 0.27100319 | 0.275795 |
| C19orf18 | 0.16084953 | 0.208832 |
| C19orf2 | 8.28829991 | 7.769476 |
| C19orf20 | 1.73638281 | 1.608064 |
| C19orf21 | 0.00737472 | 0 |
| C19orf22 | 194.132727 | 238.7983 |
| C19orf23 | 0 | 0 |
| C19orf24 | 6.29585329 | 6.992066 |
| C19orf25 | 7.49906576 | 7.270301 |
| C19orf26 | 0.01640041 | 0.018631 |
| C19orf28 | 96.5464097 | 93.5825 |
| C19orf29 | 4.79087541 | 4.104944 |
| C19orf29OS | 0 | 0 |
| C19orf30 | 0 | 0 |
| C19orf33 | 0.27364856 | 0.310869 |
| C19orf34 | 0 | 0 |
| C19orf35 | 13.719642 | 13.68979 |
| C19orf36 | 1.67788355 | 1.835506 |
| C19orf38 | 20.3302787 | 19.60816 |
| C19orf39 | 0.55662729 | 0.77605 |
| C19orf40 | 1.40533896 | 1.161082 |
| C19orf41 | 0 | 0 |
| C19orf42 | 10.0149792 | 7.532595 |
| C19orf43 | 81.7215336 | 74.93625 |
| C19orf44 | 0.02513488 | 0.057107 |

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| C19orf45 | 4.43297627 | 4.239287 |
| C19orf46 | 0.35474277 | 0.325495 |
| C19orf47 | 9.85006098 | 11.5381 |
| C19orf48 | 0.87027465 | 1.03163 |
| C19orf50 | 23.7941598 | 23.43096 |
| C19orf51 | 0.02909409 | 0.044068 |
| C19orf52 | 6.74255424 | 7.625454 |
| C19orf53 | 17.3054647 | 17.87446 |
| C19orf54 | 1.73365424 | 1.405517 |
| C19orf55 | 4.25011348 | 4.639073 |
| C19orf56 | 19.9264461 | 18.58655 |
| C19orf57 | 0.06950523 | 0.069089 |
| C19orf59 | 1.18950649 | 3.341724 |
| C19orf6 | 73.9613378 | 74.85706 |
| C19orf60 | 7.95617638 | 6.541263 |
| C19orf61 | 2.60917834 | 2.009882 |
| C19orf62 | 20.039995 | 16.72451 |
| C19orf63 | 17.7588587 | 16.53404 |
| C19orf66 | 14.1455734 | 14.21411 |
| C19orf67 | 0 | 0.021576 |
| C19orf68 | 1.48884036 | 1.375078 |
| C19orf69 | 0.13335305 | 0.100994 |
| C19orf70 | 1.91564127 | 1.698497 |
| C19orf71 | 0.81469241 | 1.067889 |
| C19orf72 | 45.225878 | 55.98932 |
| C19orf73 | 0 | 0 |
| C1D | 14.4930202 | 12.3878 |
| C1GALT1 | 12.9536869 | 11.91791 |
| C1GALT1C1 | 3.55760497 | 3.118839 |
| C1orf100 | 0.03631318 | 0.082505 |
| C1orf101 | 0.12507241 | 0.142084 |
| C1orf102 | 0.05060248 | 0.071857 |
| C1orf103 | 2.90004565 | 3.430575 |
| C1orf104 | 0.01609903 | 0.018289 |
| C1orf105 | 0.04290884 | 0.048745 |
| C1orf106 | 1.71260174 | 7.562336 |
| C1orf107 | 0.44222012 | 0.389477 |
| C1orf109 | 1.20527375 | 1.095368 |
| C1orf110 | 0 | 0 |
| C1orf111 | 0 | 0 |
| C1orf112 | 1.37543051 | 1.093758 |
| C1orf113 | 0.60129011 | 0.57048 |
| C1orf114 | 0.16901391 | 0.140802 |
| C1orf115 | 0.0495213 | 0.016073 |
| C1orf116 | 0.03439258 | 0.052094 |
| C1orf118 | 0 | 0 |
| C1orf120 | 0 | 0 |

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| C1orf122 | 4.16358982 | 4.421826 |
| C1orf123 | 6.64671753 | 5.965774 |
| C1orf124 | 2.82675111 | 2.725815 |
| C1orf125 | 0 | 0 |
| C1orf126 | 0 | 0 |
| C1orf127 | 0 | 0 |
| C1orf128 | 17.1624773 | 16.56643 |
| C1orf129 | 0 | 0 |
| C1orf130 | 0 | 0 |
| C1orf131 | 7.51637267 | 6.624581 |
| C1orf132 | 0 | 0 |
| C1orf133 | 0 | 0 |
| C1orf135 | 0.39785925 | 0.359262 |
| C1orf138 | 0 | 0 |
| C1orf14 | 0 | 0.010099 |
| C1orf141 | 0 | 0 |
| C1orf144 | 42.3341625 | 42.59095 |
| C1orf146 | 0 | 0.095413 |
| C1orf147 | 0 | 0 |
| C1orf149 | 16.7948033 | 17.24356 |
| C1orf150 | 0.0160132 | 0.054574 |
| C1orf151 | 6.76481294 | 6.208837 |
| C1orf152 | 0 | 0 |
| C1orf156 | 4.81618308 | 4.595198 |
| C1orf157 | 0 | 0 |
| C1orf158 | 0 | 0 |
| C1orf159 | 2.21845222 | 2.236391 |
| C1orf161 | 0.02604563 | 0.029588 |
| C1orf162 | 296.188904 | 255.7296 |
| C1orf163 | 1.4980874 | 2.885747 |
| C1orf167 | 0.01641322 | 0 |
| C1orf168 | 0.00607669 | 0 |
| C1orf170 | 0 | 0 |
| C1orf172 | 0.0117789 | 0 |
| C1orf173 | 0.00293691 | 0.006673 |
| C1orf174 | 33.2922107 | 33.40474 |
| C1orf175 | 3.75812773 | 3.59778 |
| C1orf177 | 0.03525768 | 0 |
| C1orf182 | 0 | 0 |
| C1orf183 | 8.23617861 | 8.529676 |
| C1orf185 | 0 | 0 |
| C1orf186 | 0.42946946 | 0.509096 |
| C1orf187 | 0.01185862 | 0.013472 |
| C1orf189 | 0.05432902 | 0.185156 |
| C1orf190 | 0 | 0.012918 |
| C1orf192 | 2.96093162 | 2.808198 |
| C1orf194 | 0.05752485 | 0.032675 |

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| C1orf198 | 0.14756404 | 0.173416 |
| C1orf199 | 0 | 0 |
| C1orf2 | 4.42916063 | 3.414298 |
| C1orf200 | 0 | 0 |
| C1orf201 | 0.05884739 | 0.085952 |
| C1orf203 | 0 | 0 |
| C1orf204 | 0.1933557 | 0.315157 |
| C1orf21 | 0.02855594 | 0.039391 |
| C1orf210 | 0 | 0 |
| C1orf211 | 0 | 0 |
| C1orf212 | 11.0865373 | 10.16629 |
| C1orf213 | 0.44051652 | 0.559807 |
| C1orf216 | 0.55895563 | 0.496589 |
| C1orf220 | 0.07342956 | 0.083417 |
| C1orf222 | 0.00762893 | 0.008667 |
| C1orf223 | 0 | 0 |
| C1orf226 | 0.00988962 | 0.011235 |
| C1orf227 | 0 | 0.047204 |
| C1orf228 | 38.7814413 | 43.57438 |
| C1orf229 | 0 | 0.010578 |
| C1orf230 | 0.04620952 | 0 |
| C1orf25 | 5.25156293 | 4.936328 |
| C1orf26 | 1.74278409 | 1.416759 |
| C1orf27 | 3.51348735 | 3.511402 |
| C1orf31 | 1.80404556 | 1.9749 |
| C1orf35 | 8.34493756 | 6.406394 |
| C1orf38 | 145.741139 | 143.9773 |
| C1orf43 | 40.9982876 | 41.89332 |
| C1orf49 | 0 | 0 |
| C1orf50 | 6.6374084 | 6.369363 |
| C1orf51 | 0 | 0 |
| C1orf52 | 6.65415652 | 6.066408 |
| C1orf53 | 0.07151473 | 0 |
| C1orf54 | 1.37665857 | 0.758257 |
| C1orf55 | 5.97352257 | 7.369888 |
| C1orf56 | 0.66568267 | 0.628249 |
| C1orf57 | 4.28898104 | 3.548342 |
| C1orf58 | 22.910619 | 19.99881 |
| C1orf59 | 12.5266058 | 12.41651 |
| C1orf61 | 0 | 0 |
| C1orf62 | 0 | 0.007831 |
| C1orf63 | 99.816503 | 102.6652 |
| C1orf64 | 0.04585677 | 0.026047 |
| C1orf65 | 0 | 0 |
| C1orf66 | 8.75669359 | 8.126622 |
| C1orf68 | 0.02315565 | 0 |
| C1orf69 | 0.46019512 | 0.3173 |

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| C1orf70 | 0.07529214 | 0.06415 |
| C1orf71 | 6.74896497 | 6.439192 |
| C1orf74 | 0.63304968 | 0.703853 |
| C1orf77 | 36.1642197 | 31.7175 |
| C1orf81 | 0 | 0 |
| C1orf83 | 5.68099619 | 5.561727 |
| C1orf84 | 1.04418731 | 1.105792 |
| C1orf85 | 2.90507727 | 1.98917 |
| C1orf86 | 32.3732493 | 39.42679 |
| C1orf87 | 0.01044997 | 0 |
| C1orf88 | 0.0089622 | 0.010181 |
| C1orf89 | 0.44131129 | 0.483432 |
| C1orf9 | 9.71515293 | 10.53817 |
| C1orf91 | 6.31537205 | 5.96024 |
| C1orf92 | 0 | 0.012118 |
| C1orf93 | 1.74628995 | 1.534149 |
| C1orf94 | 0 | 0 |
| C1orf95 | 0.0102738 | 0.005836 |
| C1orf96 | 13.3148112 | 13.05029 |
| C1orf97 | 0 | 0 |
| C1QA | 0 | 0 |
| C1QB | 0 | 0 |
| C1QBP | 3.57954904 | 4.045887 |
| C1QBPP | 0 | 0 |
| C1QC | 0 | 0 |
| C1QL1 | 0 | 0 |
| C1QL2 | 0 | 0 |
| C1QL3 | 0.19397618 | 0.134132 |
| C1QL4 | 0.01018176 | 0 |
| C1QTNF1 | 0 | 0 |
| C1QTNF2 | 0 | 0 |
| C1QTNF3 | 0.62429403 | 0.588896 |
| C1QTNF4 | 0.34199619 | 0.320946 |
| C1QTNF5 | 0 | 0 |
| C1QTNF6 | 0.27928743 | 0.187111 |
| C1QTNF7 | 0.00434497 | 0 |
| C1QTNF8 | 0 | 0 |
| C1QTNF9 | 0 | 0 |
| C1R (NC_000012) | 0.82663694 | 0.898243 |
| C1R (NC_000012) | 0.63190885 | 0.630845 |
| C1RL | 14.378082 | 10.79797 |
| C1S | 0.09853255 | 0.094714 |
| C2 | 0.02417631 | 0.009155 |
| C20orf103 | 0.01183859 | 0.026898 |
| C20orf106 | 1.48851901 | 2.254642 |
| C20orf107 | 1.78745609 | 0.791581 |
| C20orf108 | 10.623544 | 9.730387 |

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| C20orf11 | 13.9868082 | 12.96497 |
| C20orf111 | 24.9040498 | 25.25258 |
| C20orf112 | 8.14895243 | 19.73986 |
| C20orf114 | 0 | 0.01383 |
| C20orf117 | 0.41937318 | 0.379844 |
| C20orf118 | 0.24723564 | 0.070216 |
| C20orf12 | 0.42050662 | 0.477702 |
| C20orf123 | 0 | 0 |
| C20orf132 | 0.04034466 | 0.019642 |
| C20orf134 | 0 | 0 |
| C20orf135 | 1.88233537 | 1.761796 |
| C20orf141 | 0 | 0 |
| C20orf144 | 0 | 0 |
| C20orf149 | 48.5990919 | 49.52241 |
| C20orf151 | 0.01505573 | 0 |
| C20orf152 | 0.05455457 | 0.012395 |
| C20orf160 | 0.0581269 | 0.0566 |
| C20orf165 | 0.61409172 | 0.730838 |
| C20orf166 | 0.01723388 | 0 |
| C20orf173 | 0 | 0 |
| C20orf177 | 12.8758067 | 14.4954 |
| C20orf181 | 0 | 0 |
| C20orf185 | 0 | 0 |
| C20orf186 | 0 | 0 |
| C20orf189 | 0 | 0 |
| C20orf191 | 0 | 0 |
| C20orf194 | 0.0644102 | 0.041812 |
| C20orf195 | 0.22689206 | 0.36515 |
| C20orf196 | 2.62361149 | 2.814883 |
| C20orf197 | 5.06393403 | 6.014991 |
| C20orf199 | 0 | 0 |
| C20orf20 | 11.1038423 | 10.46798 |
| C20orf200 | 0.03253436 | 0 |
| C20orf201 | 0 | 0 |
| C20orf24 | 81.9095689 | 76.50286 |
| C20orf26 | 0.00515074 | 0 |
| C20orf27 | 0.21392052 | 0.243017 |
| C20orf29 | 2.82327042 | 2.268564 |
| C20orf3 | 94.874321 | 82.75368 |
| C20orf30 | 14.3487635 | 12.24195 |
| C20orf39 | 0.02588264 | 0.009801 |
| C20orf4 | 6.35446346 | 7.020255 |
| C20orf43 | 94.8498708 | 91.83238 |
| C20orf46 | 0.01222403 | 0.097207 |
| C20orf54 | 0 | 0 |
| C20orf56 | 0 | 0 |
| C20orf7 | 5.00512838 | 4.135204 |

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|-----------|------------|----------|
| C20orf70 | 0 | 0 |
| C20orf71 | 0 | 0 |
| C20orf72 | 12.2829074 | 9.178803 |
| C20orf74 | 16.6343242 | 13.61607 |
| C20orf79 | 0 | 0 |
| C20orf85 | 0 | 0 |
| C20orf94 | 0.28392416 | 0.339518 |
| C20orf95 | 0 | 0 |
| C20orf96 | 0.14873224 | 0.168962 |
| C21orf109 | 0 | 0 |
| C21orf110 | 0 | 0 |
| C21orf119 | 0 | 0 |
| C21orf121 | 0 | 0 |
| C21orf122 | 0 | 0 |
| C21orf125 | 0 | 0 |
| C21orf126 | 0 | 0 |
| C21orf128 | 0 | 0 |
| C21orf129 | 0 | 0 |
| C21orf130 | 0 | 0 |
| C21orf131 | 0 | 0 |
| C21orf136 | 0 | 0 |
| C21orf15 | 0 | 0 |
| C21orf19 | 0 | 0 |
| C21orf2 | 1.45943856 | 1.679338 |
| C21orf29 | 0.01060012 | 0.006021 |
| C21orf33 | 14.0757465 | 13.52582 |
| C21orf34 | 0 | 0 |
| C21orf41 | 0 | 0 |
| C21orf45 | 2.10119476 | 1.505172 |
| C21orf49 | 0 | 0 |
| C21orf54 | 0 | 0 |
| C21orf56 | 1.57962331 | 1.320075 |
| C21orf57 | 0.84808058 | 0.722575 |
| C21orf58 | 0.1062601 | 0.03219 |
| C21orf59 | 7.21263703 | 6.195761 |
| C21orf62 | 0.04733066 | 0.047794 |
| C21orf63 | 0.19578684 | 0.259486 |
| C21orf66 | 26.253555 | 21.54495 |
| C21orf67 | 0 | 0 |
| C21orf7 | 0.252683 | 0.299012 |
| C21orf70 | 4.05710132 | 3.632922 |
| C21orf71 | 0 | 0 |
| C21orf81 | 0 | 0 |
| C21orf82 | 0 | 0 |
| C21orf84 | 0 | 0 |
| C21orf86 | 0 | 0 |
| C21orf87 | 0 | 0 |

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| C21orf88 | 0 | 0 |
| C21orf89 | 0 | 0 |
| C21orf90 | 0 | 0 |
| C21orf91 | 13.3396495 | 13.59776 |
| C21orf93 | 0 | 0 |
| C21orf94 | 0 | 0 |
| C21orf96 | 0 | 0 |
| C21orf99 | 0 | 0 |
| C22orf13 | 28.3057963 | 24.46783 |
| C22orf15 | 0.02433487 | 0 |
| C22orf23 | 1.77906647 | 2.281334 |
| C22orf24 | 0 | 0 |
| C22orf25 | 32.3666037 | 30.96335 |
| C22orf26 | 0.30919604 | 0.104075 |
| C22orf27 | 0 | 0 |
| C22orf28 | 12.5480315 | 11.43387 |
| C22orf29 | 0.16794914 | 0.205192 |
| C22orf30 | 21.4252957 | 20.37811 |
| C22orf31 | 0.01964984 | 0 |
| C22orf32 | 3.68983153 | 3.642975 |
| C22orf33 | 0 | 0 |
| C22orf34 | 0 | 0 |
| C22orf36 | 0.11869138 | 0.115573 |
| C22orf37 | 0 | 0 |
| C22orf39 | 7.50781679 | 6.885797 |
| C22orf40 | 1.49375676 | 1.232677 |
| C22orf41 | 0.04756862 | 0 |
| C22orf42 | 0 | 0 |
| C22orf43 | 0.39453318 | 0.466871 |
| C22orf9 | 19.73111116 | 20.93344 |
| C2CD2 | 0.02276173 | 0.011082 |
| C2CD2L | 27.7089215 | 33.67058 |
| C2CD3 | 4.3777671 | 3.809755 |
| C2orf14 | 0 | 0 |
| C2orf15 | 0.05881211 | 0 |
| C2orf16 | 0.04407826 | 0.015407 |
| C2orf18 | 2.4615546 | 2.069799 |
| C2orf21 | 0.10021868 | 0.053026 |
| C2orf24 | 16.6154858 | 17.07889 |
| C2orf27A | 0 | 0 |
| C2orf27AP1 | 0 | 0 |
| C2orf27B | 0 | 0 |
| C2orf28 | 18.4836422 | 14.72744 |
| C2orf29 | 13.0594192 | 12.23661 |
| C2orf3 | 0.43794325 | 0.340887 |
| C2orf30 | 11.4995963 | 12.57393 |
| C2orf34 | 0.28430905 | 0.35374 |

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| C2orf37 | 1.30995518 | 1.175498 |
| C2orf39 | 0.00844052 | 0.009589 |
| C2orf40 | 0.02681802 | 0.030466 |
| C2orf42 | 1.50775947 | 1.315384 |
| C2orf43 | 0.09570354 | 0.091994 |
| C2orf44 | 1.05288637 | 0.736059 |
| C2orf47 | 3.04755462 | 3.319141 |
| C2orf48 | 0 | 0.025116 |
| C2orf49 | 8.43857703 | 8.239959 |
| C2orf50 | 0.01991035 | 0 |
| C2orf51 | 0 | 0 |
| C2orf52 | 0 | 0 |
| C2orf53 | 0 | 0 |
| C2orf54 | 0 | 0 |
| C2orf55 | 1.98352179 | 2.845964 |
| C2orf56 | 6.83727407 | 6.460106 |
| C2orf57 | 0 | 0 |
| C2orf58 | 0 | 0 |
| C2orf60 | 4.13459022 | 3.202473 |
| C2orf61 | 0.11292902 | 0.069976 |
| C2orf62 | 1.84349085 | 3.646857 |
| C2orf63 | 1.42702357 | 1.541827 |
| C2orf64 | 9.88013446 | 9.901829 |
| C2orf65 | 0.11575094 | 0.07514 |
| C2orf66 | 0 | 0 |
| C2orf67 | 6.04721164 | 5.885185 |
| C2orf68 | 20.497849 | 19.90892 |
| C2orf69 | 5.89363489 | 5.279327 |
| C2orf7 | 1.78608536 | 2.029021 |
| C2orf70 | 0 | 0 |
| C2orf71 | 0 | 0.003391 |
| C2orf72 | 0 | 0.00667 |
| C2orf73 | 0 | 0 |
| C2orf74 | 4.58851997 | 4.233734 |
| C2orf76 | 0.77461746 | 0.804551 |
| C2orf77 | 0.10662916 | 0.187205 |
| C2orf78 | 0 | 0 |
| C2orf79 | 1.9481513 | 1.419744 |
| C2orf80 | 0 | 0 |
| C2orf81 | 0.00943263 | 0.032147 |
| C2orf82 | 0.76866801 | 0.410927 |
| C2orf83 | 0.02280405 | 0.025906 |
| C2orf84 | 0.04740774 | 0.094248 |
| C2orf85 | 0 | 0.026569 |
| C2orf86 | 0.64293867 | 0.596952 |
| C2orf88 | 0.11319818 | 0.173324 |
| C3 | 0.5770528 | 1.264258 |

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| C3AR1 | 135.906449 | 76.21244 |
| C3orf1 | 11.2899177 | 10.74531 |
| C3orf10 | 48.4512304 | 57.53955 |
| C3orf14 | 0.21901386 | 0.124402 |
| C3orf15 | 0 | 0.005388 |
| C3orf16 | 0.0169833 | 0 |
| C3orf17 | 7.73797924 | 7.227936 |
| C3orf18 | 0.18214034 | 0.224907 |
| C3orf19 | 16.6142734 | 15.28324 |
| C3orf20 | 0.1411096 | 0.138443 |
| C3orf21 | 3.48490418 | 7.47891 |
| C3orf22 | 0 | 0 |
| C3orf23 | 1.33738168 | 1.178757 |
| C3orf24 | 0.04147008 | 0.023555 |
| C3orf25 | 0.20498234 | 0.232863 |
| C3orf26 | 1.77258633 | 1.714624 |
| C3orf27 | 0.00779582 | 0.008856 |
| C3orf30 | 0 | 0 |
| C3orf31 | 0.80543965 | 0.838743 |
| C3orf32 | 0.01360863 | 0.01546 |
| C3orf33 | 0.14154806 | 0.074216 |
| C3orf34 | 5.23686484 | 4.268358 |
| C3orf35 | 0.6326666 | 0.659646 |
| C3orf36 | 0 | 0.01432 |
| C3orf37 | 21.059261 | 21.01992 |
| C3orf38 | 8.75389255 | 8.809337 |
| C3orf39 | 1.36689504 | 1.326951 |
| C3orf42 | 0 | 0 |
| C3orf43 | 0.03484861 | 0.026392 |
| C3orf44 | 0.02048254 | 0.034903 |
| C3orf45 | 0.17594419 | 0.199875 |
| C3orf46 | 0 | 0 |
| C3orf47 | 0 | 0 |
| C3orf48 | 0 | 0 |
| C3orf49 | 0 | 0 |
| C3orf50 | 0 | 0 |
| C3orf51 | 0 | 0 |
| C3orf52 | 0.00922973 | 0 |
| C3orf53 | 0 | 0 |
| C3orf54 | 2.24404975 | 2.52631 |
| C3orf55 | 0 | 0 |
| C3orf56 | 0 | 0 |
| C3orf57 | 0 | 0 |
| C3orf58 | 8.66098981 | 6.65122 |
| C3orf59 | 0 | 0 |
| C3orf62 | 5.45253012 | 5.402426 |
| C3orf63 | 8.50363158 | 8.050671 |

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| C3orf64 | 1.53447316 | 1.714325 |
| C3orf65 | 0 | 0 |
| C3orf66 | 0 | 0 |
| C3orf67 | 0 | 0.028089 |
| C3orf70 | 0.14964648 | 0.250954 |
| C3orf71 | 0.72365031 | 0.373672 |
| C3orf72 | 0.00515959 | 0.005861 |
| C3orf74 | 0 | 0 |
| C3orf75 | 2.11967755 | 1.522698 |
| C3orf76 | 0 | 0 |
| C3P1 | 0 | 0 |
| C4A | 0.30999382 | 0.303736 |
| C4B | 0.17433939 | 0.145238 |
| C4BPA | 0 | 0 |
| C4BPAL1 | 0 | 0 |
| C4BPAL2 | 0 | 0 |
| C4BPB | 0.03515942 | 0.019971 |
| C4orf10 | 0 | 0 |
| C4orf11 | 0 | 0 |
| C4orf12 | 0 | 0 |
| C4orf14 | 5.7375463 | 6.24461 |
| C4orf16 | 0.85315992 | 0.804931 |
| C4orf17 | 0 | 0 |
| C4orf18 | 0 | 0 |
| C4orf19 | 0.20504408 | 0.132205 |
| C4orf21 | 0.64266819 | 0.522509 |
| C4orf22 | 0 | 0 |
| C4orf23 | 0.85191779 | 0.864561 |
| C4orf26 | 0.02978092 | 0 |
| C4orf27 | 2.88752489 | 2.573149 |
| C4orf29 | 4.57778797 | 4.483886 |
| C4orf3 | 15.5745935 | 15.13537 |
| C4orf30 | 6.47217752 | 5.903004 |
| C4orf31 | 0.0146467 | 0.016639 |
| C4orf32 | 1.36518106 | 1.656011 |
| C4orf33 | 16.4611902 | 10.08728 |
| C4orf34 | 3.30507016 | 3.162539 |
| C4orf35 | 0 | 0.01547 |
| C4orf36 | 0.06946695 | 0 |
| C4orf37 | 0.02548525 | 0.028952 |
| C4orf38 | 0 | 0 |
| C4orf39 | 0 | 0 |
| C4orf40 | 0.00438302 | 0 |
| C4orf41 | 14.3033571 | 13.54686 |
| C4orf42 | 0.76690756 | 0.685229 |
| C4orf43 | 0.18635591 | 0.211703 |
| C4orf44 | 0.1217897 | 0.16351 |

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| C4orf45 | 0 | 0 |
| C4orf46 | 1.06170466 | 1.029939 |
| C4orf47 | 0 | 0 |
| C4orf48 | 28.8192036 | 25.06907 |
| C4orf49 | 0.14132037 | 0.08919 |
| C4orf50 | 0.0066159 | 0 |
| C4orf6 | 0 | 0 |
| C4orf7 | 0 | 0 |
| C4orf8 | 12.1807432 | 11.89966 |
| C5 | 0.09233448 | 0.087411 |
| C5AR1 | 60.8226376 | 48.82067 |
| C5orf13 | 0.17891273 | 0.175214 |
| C5orf15 | 9.42038064 | 9.392785 |
| C5orf20 | 0.00670664 | 0 |
| C5orf22 | 6.26335994 | 6.315138 |
| C5orf23 | 0.01462632 | 0.008308 |
| C5orf24 | 7.8931898 | 7.69843 |
| C5orf25 | 5.70541748 | 7.803242 |
| C5orf26 | 0 | 0 |
| C5orf27 | 0 | 0 |
| C5orf28 | 1.08134625 | 0.865089 |
| C5orf30 | 0.87314497 | 0.690367 |
| C5orf32 | 8.89533233 | 9.29157 |
| C5orf33 | 3.41888309 | 2.623605 |
| C5orf34 | 0.40499613 | 0.401348 |
| C5orf35 | 0.85128268 | 0.660064 |
| C5orf36 | 0.01778363 | 0.017316 |
| C5orf37 | 4.76399114 | 4.868642 |
| C5orf38 | 0 | 0 |
| C5orf39 | 2.14239154 | 3.773319 |
| C5orf4 | 0.05413319 | 0.086095 |
| C5orf40 | 0 | 0 |
| C5orf41 | 18.3575925 | 16.42485 |
| C5orf42 | 0.47575385 | 0.415959 |
| C5orf43 | 2.56814596 | 3.305897 |
| C5orf44 | 4.17389748 | 3.764041 |
| C5orf45 | 2.13579548 | 1.948993 |
| C5orf46 | 0 | 0.044068 |
| C5orf47 | 0.05002061 | 0.037883 |
| C5orf48 | 0 | 0 |
| C5orf49 | 0 | 0.02328 |
| C5orf50 | 0.0188399 | 0.08561 |
| C5orf51 | 5.12547804 | 4.413851 |
| C5orf52 | 0 | 0 |
| C5orf53 | 3.31015312 | 4.617289 |
| C5orf54 | 0.05243225 | 0.034036 |
| C5orf55 | 0.39598132 | 0.246687 |

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| C5orf56 | 6.75925455 | 7.053479 |
| C6 | 0.00545971 | 0 |
| C6orf1 | 24.9828352 | 20.89452 |
| C6orf10 | 0 | 0 |
| C6orf100 | 0 | 0 |
| C6orf103 | 0.00397454 | 0.004515 |
| C6orf105 | 0.02263222 | 0.025711 |
| C6orf106 | 41.1752012 | 37.74377 |
| C6orf108 | 0.07914177 | 0.089906 |
| C6orf114 | 0 | 0 |
| C6orf115 | 9.35565023 | 8.988716 |
| C6orf118 | 0 | 0 |
| C6orf120 | 2.08427666 | 1.912652 |
| C6orf122 | 0 | 0 |
| C6orf123 | 0 | 0 |
| C6orf124 | 0 | 0 |
| C6orf125 | 1.24656112 | 0.944075 |
| C6orf126 | 0.10281335 | 0 |
| C6orf127 | 0 | 0 |
| C6orf129 | 1.86214686 | 1.65388 |
| C6orf130 | 13.3960371 | 10.90496 |
| C6orf132 | 0.01241409 | 0.009402 |
| C6orf134 | 2.42338992 | 1.861034 |
| C6orf136 | 8.16779132 | 7.213966 |
| C6orf138 | 0.01633035 | 0 |
| C6orf140 | 0 | 0 |
| C6orf141 | 0 | 0 |
| C6orf142 | 0 | 0.01316 |
| C6orf145 | 0.01916621 | 0 |
| C6orf146 | 0 | 0 |
| C6orf147 | 0 | 0 |
| C6orf15 | 0 | 0 |
| C6orf150 | 4.97047225 | 6.229746 |
| C6orf153 | 16.9980458 | 15.41507 |
| C6orf154 | 0.01982587 | 0.022522 |
| C6orf155 | 0 | 0 |
| C6orf162 | 0.38871812 | 0.490655 |
| C6orf163 | 0.12947859 | 0.203663 |
| C6orf164 | 0 | 0 |
| C6orf165 | 0.00661174 | 0.007511 |
| C6orf167 | 0.25299484 | 0.207264 |
| C6orf168 | 0.00215423 | 0.004894 |
| C6orf170 | 0.21713611 | 0.232708 |
| C6orf173 | 0.11468362 | 0.043427 |
| C6orf174 | 0.00591264 | 0.040301 |
| C6orf176 | 0 | 0 |
| C6orf182 | 0.43533523 | 0.28591 |

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| C6orf182P | 0 | 0 |
| C6orf185 | 0 | 0 |
| C6orf186 | 0.09548288 | 0.151858 |
| C6orf191 | 0 | 0 |
| C6orf192 | 0.03468096 | 0.039398 |
| C6orf195 | 0 | 0 |
| C6orf201 | 0.01273491 | 0.014467 |
| C6orf203 | 1.38415609 | 1.210766 |
| C6orf204 | 2.36022517 | 2.089115 |
| C6orf208 | 0 | 0 |
| C6orf211 | 3.40885032 | 2.77669 |
| C6orf217 | 0 | 0 |
| C6orf218 | 0 | 0 |
| C6orf221 | 0 | 0 |
| C6orf222 | 0.06753318 | 0.057539 |
| C6orf223 | 0.03035053 | 0.137915 |
| C6orf224 | 0.05824191 | 0 |
| C6orf225 | 0.02361512 | 0.017885 |
| C6orf226 | 4.45645602 | 4.153932 |
| C6orf227 | 0 | 0 |
| C6orf25 | 0.36250571 | 0.631445 |
| C6orf26 | 0.82722614 | 1.018054 |
| C6orf27 | 0.27418071 | 0.204917 |
| C6orf35 | 0.93916521 | 0.889089 |
| C6orf41 | 0 | 0 |
| C6orf47 | 20.0653866 | 19.27215 |
| C6orf48 | 15.1821867 | 14.52396 |
| C6orf52 | 0.20314329 | 0.192312 |
| C6orf57 | 1.16139923 | 1.137386 |
| C6orf58 | 0 | 0.019904 |
| C6orf59 | 0 | 0 |
| C6orf62 | 96.2846232 | 90.26698 |
| C6orf64 | 3.97510163 | 3.035399 |
| C6orf70 | 2.16526507 | 1.885062 |
| C6orf72 | 12.190521 | 11.3072 |
| C6orf81 | 0.05395722 | 0.081728 |
| C6orf89 | 16.1575199 | 15.01178 |
| C6orf97 | 2.49932005 | 1.831056 |
| C7 | 0 | 0 |
| C7orf10 | 0.06537727 | 0.044562 |
| C7orf11 | 7.60726637 | 7.734946 |
| C7orf13 | 0 | 0 |
| C7orf16 | 0 | 0 |
| C7orf20 | 18.5784174 | 20.87659 |
| C7orf23 | 7.51912603 | 8.931153 |
| C7orf25 | 6.10598653 | 3.97867 |
| C7orf26 | 16.277321 | 17.0055 |

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| C7orf27 | 10.0921589 | 11.29677 |
| C7orf28A | 14.6578567 | 13.31601 |
| C7orf28B | 17.1418987 | 18.35026 |
| C7orf29 | 0 | 0.016627 |
| C7orf30 | 5.79240906 | 5.979186 |
| C7orf31 | 2.24876081 | 2.230336 |
| C7orf33 | 0 | 0 |
| C7orf34 | 0 | 0.062201 |
| C7orf36 | 1.30180203 | 1.032417 |
| C7orf38 | 1.70801806 | 1.423616 |
| C7orf4 | 0 | 0 |
| C7orf40 | 0 | 0 |
| C7orf41 | 18.0093134 | 15.15928 |
| C7orf42 | 37.7890387 | 47.22353 |
| C7orf43 | 39.7340284 | 32.48337 |
| C7orf44 | 32.114537 | 32.66435 |
| C7orf45 | 0.018188 | 0 |
| C7orf46 | 1.15696454 | 0.795089 |
| C7orf47 | 36.2630439 | 38.70415 |
| C7orf49 | 42.6257823 | 39.01842 |
| C7orf50 | 24.2449872 | 29.16828 |
| C7orf51 | 0.02348543 | 0.01334 |
| C7orf52 | 0 | 0.008149 |
| C7orf53 | 7.48576291 | 7.0756 |
| C7orf55 | 3.97180165 | 2.90059 |
| C7orf57 | 0.12862555 | 0.06744 |
| C7orf58 | 0 | 0.00852 |
| C7orf59 | 133.29785 | 102.6826 |
| C7orf60 | 3.39754841 | 3.168927 |
| C7orf61 | 0.77483789 | 0.832648 |
| C7orf62 | 0 | 0 |
| C7orf63 | 0.01384156 | 0.007862 |
| C7orf64 | 7.54315892 | 6.468594 |
| C7orf65 | 0 | 0 |
| C7orf66 | 0 | 0 |
| C7orf67 | 0 | 0 |
| C7orf68 | 3.29079189 | 0.693548 |
| C7orf69 | 0 | 0 |
| C7orf70 | 7.46427739 | 10.11935 |
| C8A | 0 | 0 |
| C8B | 0.13418228 | 0.058628 |
| C8G | 0.52743134 | 0.49023 |
| C8orf12 | 0 | 0 |
| C8orf22 | 0 | 0 |
| C8orf30A | 0.45460175 | 0.794515 |
| C8orf30B | 0.40656717 | 0.263924 |
| C8orf31 | 0.10092159 | 0.140126 |

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| C8orf33 | 3.05297125 | 2.911483 |
| C8orf34 | 0.00575721 | 0 |
| C8orf37 | 0.13059212 | 0.317903 |
| C8orf38 | 2.05440141 | 1.480317 |
| C8orf39 | 0 | 0 |
| C8orf4 | 0 | 0 |
| C8orf40 | 2.80158158 | 2.968425 |
| C8orf41 | 4.12777323 | 3.558947 |
| C8orf42 | 0.01115402 | 0 |
| C8orf44 | 3.49457895 | 2.918269 |
| C8orf45 | 0.03750505 | 0.017043 |
| C8orf46 | 0.06067917 | 0.034466 |
| C8orf47 | 0 | 0.01541 |
| C8orf48 | 0 | 0 |
| C8orf49 | 0 | 0 |
| C8orf51 | 0 | 0 |
| C8orf55 | 0.10215488 | 0.421998 |
| C8orf56 | 0 | 0 |
| C8orf58 | 3.4496283 | 3.27926 |
| C8orf59 | 7.61261983 | 5.902642 |
| C8orf62 | 0 | 0 |
| C8orf71 | 0 | 0 |
| C8orf73 | 9.52639573 | 12.57072 |
| C8orf74 | 0 | 0 |
| C8orf75 | 0 | 0 |
| C8orf76 | 13.8315941 | 13.00123 |
| C8orf77 | 0 | 0 |
| C8orf79 | 0 | 0.004772 |
| C8orf80 | 0.0270457 | 0.030724 |
| C8orf81 | 0 | 0 |
| C8orf82 | 3.8415848 | 2.583845 |
| C8orf83 | 0 | 0 |
| C8orf84 | 0.38751268 | 0.427643 |
| C8orf85 | 0.0117723 | 0 |
| C8orf86 | 0.00934459 | 0 |
| C8ORFK29 | 0 | 0 |
| C9 | 0 | 0 |
| C9orf100 | 0.04469908 | 0.031737 |
| C9orf102 | 0.83703168 | 0.786405 |
| C9orf103 | 1.02912091 | 0.710338 |
| C9orf106 | 0 | 0.028333 |
| C9orf109 | 0 | 0 |
| C9orf11 | 0 | 0 |
| C9orf110 | 0 | 0 |
| C9orf114 | 3.89693634 | 3.397451 |
| C9orf116 | 0.17472574 | 0.066164 |
| C9orf117 | 0.04883933 | 0.069353 |

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| C9orf119 | 3.70783105 | 3.359985 |
| C9orf122 | 0 | 0 |
| C9orf123 | 0.92149621 | 0.614655 |
| C9orf125 | 0 | 0 |
| C9orf126 | 0.20731633 | 0.168785 |
| C9orf127 | 0.01020399 | 0.017388 |
| C9orf128 | 0 | 0.013871 |
| C9orf129 | 0.0728781 | 0.062093 |
| C9orf130 | 0 | 0 |
| C9orf131 | 0.12824047 | 0.201182 |
| C9orf135 | 0 | 0 |
| C9orf139 | 2.57925423 | 3.925547 |
| C9orf140 | 0.44431302 | 0.729078 |
| C9orf142 | 18.8502967 | 34.62164 |
| C9orf144 | 0 | 0 |
| C9orf144B | 0.00489189 | 0 |
| C9orf147 | 0 | 0 |
| C9orf150 | 0 | 0 |
| C9orf152 | 0.00790129 | 0.008976 |
| C9orf153 | 0 | 0 |
| C9orf156 | 18.9560092 | 16.06368 |
| C9orf16 | 31.5232522 | 34.40394 |
| C9orf163 | 0.10622981 | 0.241357 |
| C9orf167 | 19.7748689 | 26.56771 |
| C9orf169 | 0.05682522 | 0.064554 |
| C9orf170 | 0.01233519 | 0 |
| C9orf171 | 0 | 0 |
| C9orf21 | 8.73623956 | 7.740725 |
| C9orf23 | 4.30990164 | 3.352296 |
| C9orf24 | 0.03171241 | 0 |
| C9orf25 | 1.41572902 | 1.455437 |
| C9orf27 | 0 | 0 |
| C9orf29 | 0 | 0 |
| C9orf3 | 0.32059902 | 0.355736 |
| C9orf30 | 4.62194775 | 5.621237 |
| C9orf31 | 0 | 0 |
| C9orf37 | 4.86248648 | 4.680655 |
| C9orf4 | 0 | 0 |
| C9orf40 | 2.83050692 | 1.756711 |
| C9orf41 | 1.42853366 | 1.884233 |
| C9orf43 | 0.01026627 | 0.011663 |
| C9orf45 | 0 | 0 |
| C9orf46 | 1.37720508 | 0.834414 |
| C9orf47 | 0 | 0.004878 |
| C9orf5 | 4.84552769 | 4.148608 |
| C9orf50 | 2.1155117 | 3.184681 |
| C9orf51 | 0 | 0 |

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| C9orf53 | 0 | 0 |
| C9orf57 | 0 | 0 |
| C9orf6 | 3.36493267 | 2.898193 |
| C9orf61 | 0.00847112 | 0 |
| C9orf62 | 0 | 0 |
| C9orf64 | 6.50136548 | 6.159539 |
| C9orf66 | 1.78858702 | 2.066156 |
| C9orf68 | 0.021631 | 0 |
| C9orf69 | 6.16348894 | 6.481302 |
| C9orf7 | 3.98374692 | 3.485232 |
| C9orf70 | 0 | 0 |
| C9orf71 | 0.01688782 | 0 |
| C9orf72 | 5.45457158 | 5.235616 |
| C9orf75 | 2.14239154 | 2.197958 |
| C9orf78 | 58.8894308 | 68.56787 |
| C9orf79 | 0 | 0 |
| C9orf80 | 7.1050167 | 6.159349 |
| C9orf82 | 2.11492828 | 2.279382 |
| C9orf84 | 0.01683036 | 0.00956 |
| C9orf85 | 1.9157477 | 1.595968 |
| C9orf86 | 15.3768351 | 16.30581 |
| C9orf89 | 114.571809 | 149.6378 |
| C9orf9 | 0.20469724 | 0.13288 |
| C9orf91 | 1.23564847 | 1.315984 |
| C9orf93 | 0.03376401 | 0.027397 |
| C9orf95 | 9.6755295 | 10.29082 |
| C9orf96 | 0.03026316 | 0.042974 |
| C9orf97 | 5.53648056 | 5.31859 |
| C9orf98 | 0 | 0.022683 |
| CA1 | 0 | 0.016952 |
| CA10 | 0 | 0.012353 |
| CA11 | 0.58509693 | 0.534633 |
| CA12 | 0.02115757 | 0.042062 |
| CA13 | 0.50722588 | 0.681547 |
| CA14 | 0.04836189 | 0.041205 |
| CA2 | 0.47956937 | 0.659493 |
| CA3 | 0.05996957 | 0.122627 |
| CA4 | 21.0799422 | 23.2854 |
| CA5A | 0.21335668 | 0.132205 |
| CA5B | 0.50890224 | 0.388054 |
| CA5BP | 0 | 0 |
| CA6 | 0 | 0.017838 |
| CA7 | 0 | 0.025822 |
| CA8 | 0.11075679 | 0.104851 |
| CA9 | 0 | 0 |
| CAB39 | 31.1455882 | 28.17782 |
| CAB39L | 1.3753412 | 1.316973 |

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| CABC1 | 36.8662352 | 33.65481 |
| CABIN1 | 14.1692448 | 21.62624 |
| CABLES1 | 0.41780319 | 0.483938 |
| CABLES2 | 3.79400292 | 3.969282 |
| CABP1 | 0.04428716 | 0.037733 |
| CABP2 | 0 | 0 |
| CABP4 | 0.44460113 | 0.668001 |
| CABP5 | 0 | 0 |
| CABP7 | 0.07050748 | 0.088107 |
| CABYR | 0.00887519 | 0.010082 |
| CABYRP | 0 | 0 |
| CACHD1 | 0.11959801 | 0.063404 |
| CACNA1A | 0.03372532 | 0.01642 |
| CACNA1B | 0.00859053 | 0.004879 |
| CACNA1C | 0.00301309 | 0.008557 |
| CACNA1D | 2.82581303 | 2.494101 |
| CACNA1E | 0.03459536 | 0.036845 |
| CACNA1F | 0.10737813 | 0.098374 |
| CACNA1G | 0.00250123 | 0.005683 |
| CACNA1H | 0.00259957 | 0.005906 |
| CACNA1I | 0.00840845 | 0.016716 |
| CACNA1S | 0.01022633 | 0.030979 |
| CACNA2D1 | 0.00550113 | 0 |
| CACNA2D2 | 0.25180037 | 0.147494 |
| CACNA2D3 | 0 | 0.012999 |
| CACNA2D4 | 0.89720671 | 0.777842 |
| CACNB1 | 0.07257264 | 0.041222 |
| CACNB2 | 0.23956476 | 0.224123 |
| CACNB3 | 0.07792932 | 0.044264 |
| CACNB4 | 0.02461983 | 0.013984 |
| CACNG1 | 0 | 0.018867 |
| CACNG2 | 0.01358226 | 0 |
| CACNG3 | 0.00778428 | 0.017686 |
| CACNG4 | 0.00618938 | 0.014062 |
| CACNG5 | 0 | 0 |
| CACNG6 | 28.1512134 | 18.5271 |
| CACNG7 | 0.01344331 | 0 |
| CACNG8 | 2.98242168 | 1.887884 |
| CACYBP | 6.39322281 | 5.620026 |
| CAD | 1.28967984 | 1.226514 |
| CADM1 | 0.00976333 | 0.005546 |
| CADM2 | 0.04417086 | 0.028674 |
| CADM3 | 0 | 0.006459 |
| CADM4 | 2.31897033 | 3.249077 |
| CADPS | 0.00378767 | 0.008606 |
| CADPS2 | 0.00361882 | 0 |
| CAGE1 | 0.02949889 | 0 |

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|-----------|------------|----------|
| CALB1 | 0.0332285 | 0 |
| CALB2 | 0.01441078 | 0 |
| CALCA | 0 | 0.016916 |
| CALCB | 0 | 0.023167 |
| CALCOCO1 | 79.1245466 | 69.01275 |
| CALCOCO2 | 30.9294022 | 27.94601 |
| CALCP | 0 | 0 |
| CALCR | 0 | 0 |
| CALCRL | 0.04626498 | 0.038224 |
| CALD1 | 0.01533297 | 0 |
| CALHM1 | 0.02064005 | 0.015632 |
| CALHM2 | 0.09708978 | 0.07353 |
| CALHM3 | 0 | 0.014458 |
| CALM1 | 58.7217825 | 56.59992 |
| CALM1P1 | 0 | 0 |
| CALM1P2 | 0 | 0 |
| CALM2 | 258.883707 | 276.4574 |
| CALM2P1 | 0 | 0 |
| CALM2P2 | 0 | 0 |
| CALM2P3 | 0 | 0 |
| CALM3 | 45.2244724 | 39.80852 |
| CALML3 | 0 | 0 |
| CALML4 | 3.74237282 | 4.117412 |
| CALML5 | 0 | 0 |
| CALML6 | 0.01909658 | 0 |
| CALN1 | 0.00631961 | 0.007179 |
| CALR | 69.358287 | 69.11808 |
| CALR3 | 0.01636213 | 0 |
| CALU | 6.10808033 | 5.500733 |
| CALY | 0 | 0.024298 |
| CAMK1 | 155.159287 | 162.1224 |
| CAMK1D | 79.0302793 | 73.91533 |
| CAMK1G | 0 | 0 |
| CAMK2A | 0.00428738 | 0.009741 |
| CAMK2B | 0.01374504 | 0 |
| CAMK2D | 0.0448522 | 0.023517 |
| CAMK2G | 33.7707273 | 25.74311 |
| CAMK2N1 | 0.01788629 | 0.020319 |
| CAMK2N2 | 0 | 0 |
| CAMK4 | 0.0898092 | 0.045344 |
| CAMKK1 | 12.1747841 | 16.82305 |
| CAMKK2 | 14.8700891 | 12.21564 |
| CAMKV | 0 | 0 |
| CAMLG | 8.85678944 | 8.90135 |
| CAMP | 1.3251259 | 1.405006 |
| CAMSAP1 | 2.36951705 | 2.309948 |
| CAMSAP1L1 | 0 | 0.012995 |

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| CAMTA1 | 0.51554649 | 0.492301 |
| CAMTA2 | 17.0645815 | 16.20451 |
| CAND1 | 8.10336469 | 8.380811 |
| CAND2 | 0.02485851 | 0 |
| CANT1 | 23.2531806 | 22.48213 |
| CANX | 33.1914118 | 31.543 |
| CAP1 | 402.097134 | 401.4387 |
| CAP2 | 0 | 0 |
| CAP2P1 | 0 | 0 |
| CAPG | 85.8655853 | 108.9406 |
| CAPN1 | 42.1135911 | 42.47212 |
| CAPN10 | 7.84824854 | 9.560907 |
| CAPN11 | 0 | 0 |
| CAPN12 | 1.04824277 | 0.916016 |
| CAPN13 | 0 | 0.008906 |
| CAPN14 | 0.00550113 | 0 |
| CAPN2 | 5.3346955 | 5.601496 |
| CAPN3 | 0.93934866 | 0.855615 |
| CAPN5 | 0.05743318 | 0.070682 |
| CAPN6 | 0 | 0 |
| CAPN7 | 13.5788596 | 12.19409 |
| CAPN8 | 0 | 0 |
| CAPN9 | 0 | 0 |
| CAPNS1 | 58.4526962 | 57.46647 |
| CAPNS2 | 0 | 0 |
| CAPRIN1 | 14.3263988 | 13.61879 |
| CAPRIN2 | 10.9509862 | 13.8997 |
| CAPS | 2.74413891 | 3.191609 |
| CAPS2 | 0.06893551 | 0.111874 |
| CAPSL | 0 | 0 |
| CAPZA1 | 105.372206 | 100.2826 |
| CAPZA1P | 0 | 0 |
| CAPZA2 | 38.7576453 | 39.60914 |
| CAPZA3 | 0 | 0 |
| CAPZB | 174.87118 | 165.6868 |
| CARD10 | 0.03235496 | 0.012252 |
| CARD11 | 0.28854526 | 0.322329 |
| CARD14 | 0.00480799 | 0 |
| CARD16 | 7.15637914 | 6.081565 |
| CARD17 | 0 | 0 |
| CARD18 | 0 | 0 |
| CARD6 | 2.05275382 | 1.375857 |
| CARD8 | 29.3060891 | 29.84155 |
| CARD9 | 10.9929898 | 19.23859 |
| CARHSP1 | 3.49045278 | 3.808791 |
| CARKD | 2.17203832 | 2.305963 |
| CARM1 | 1.28928916 | 1.818745 |

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|------------|------------|----------|
| CARM1L | 0 | 0 |
| CARS | 17.1794163 | 16.60058 |
| CARS2 | 22.0406616 | 17.04228 |
| CARTPT | 0 | 0 |
| CASC1 | 0.12459455 | 0.079617 |
| CASC2 | 0 | 0 |
| CASC3 | 41.1704148 | 34.21628 |
| CASC4 | 13.8434898 | 13.40485 |
| CASC5 | 0.28726867 | 0.245533 |
| CASD1 | 3.2821614 | 3.021017 |
| CASK | 0.19222004 | 0.172393 |
| CASKIN1 | 0.01845947 | 0.008388 |
| CASKIN2 | 0.06146559 | 0.060516 |
| CASKP1 | 0 | 0 |
| CASP1 | 20.7309453 | 14.87319 |
| CASP10 | 1.78158362 | 1.460668 |
| CASP12 | 0 | 0 |
| CASP14 | 0 | 0 |
| CASP2 | 25.9365059 | 23.95456 |
| CASP3 | 29.4102927 | 13.93075 |
| CASP4 | 3.52893425 | 2.930895 |
| CASP5 | 0 | 0.016052 |
| CASP6 | 2.22784964 | 2.343933 |
| CASP7 | 1.82828965 | 2.028287 |
| CASP8 | 159.420598 | 154.9363 |
| CASP8AP2 | 3.44412577 | 3.280495 |
| CASP9 | 8.32362575 | 6.95101 |
| CASQ1 | 0.11195597 | 0.063592 |
| CASQ2 | 0 | 0 |
| CASR | 0.00439401 | 0.009983 |
| CASS4 | 27.956668 | 28.67152 |
| CAST | 8.10492597 | 6.900678 |
| CASZ1 | 3.15651227 | 2.933112 |
| CAT | 511.060355 | 347.115 |
| CATSPER1 | 0.15253199 | 0.145919 |
| CATSPER2 | 0.4391714 | 0.374179 |
| CATSPER2P1 | 0 | 0 |
| CATSPER3 | 0.12571199 | 0.178514 |
| CATSPER4 | 0.01481701 | 0 |
| CATSPERB | 0 | 0 |
| CAV1 | 0 | 0.008833 |
| CAV2 | 0.00636938 | 0.014471 |
| CAV3 | 0 | 0 |
| CBARA1 | 6.71943567 | 4.461837 |
| CBFA2T2 | 5.6088795 | 6.760961 |
| CBFA2T3 | 4.23722369 | 5.952474 |
| CBFB | 25.450305 | 36.68832 |

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| CBL | 25.58547 | 26.18703 |
| CBLB | 6.66295699 | 2.997653 |
| CBLC | 0 | 0.015013 |
| CBLL1 | 9.20166266 | 8.784748 |
| CBLN1 | 0.02076576 | 0.011795 |
| CBLN2 | 0 | 0 |
| CBLN3 | 0.13443306 | 0.142537 |
| CBLN4 | 0 | 0 |
| CBR1 | 0.45597103 | 0.287772 |
| CBR3 | 0.20798439 | 0.214794 |
| CBR4 | 3.5954776 | 3.503979 |
| CBS | 0.05682522 | 0.018444 |
| CBWD1 | 4.90706516 | 5.272825 |
| CBWD2 | 13.4777763 | 11.20905 |
| CBWD3 | 1.70541503 | 1.591418 |
| CBWD5 | 1.92598452 | 0.896451 |
| CBWD6 | 4.48882866 | 3.654324 |
| CBWD7 | 0.25301241 | 0.057485 |
| CBX1 | 7.85699961 | 7.310129 |
| CBX2 | 0.00428214 | 0.019458 |
| CBX3 | 72.6972017 | 80.1769 |
| CBX3P1 | 0 | 0 |
| CBX4 | 29.2798965 | 29.43937 |
| CBX5 | 6.29094626 | 6.041717 |
| CBX6 | 6.58446814 | 5.604572 |
| CBX7 | 32.9753992 | 29.30807 |
| CBX8 | 4.50641545 | 3.234933 |
| CBY1 | 1.83620121 | 1.127543 |
| CBY3 | 0.02699016 | 0 |
| CC2D1A | 8.4563419 | 9.120962 |
| CC2D1B | 12.0581522 | 12.27082 |
| CC2D2A | 0.05494766 | 0.035669 |
| CC2D2B | 0.65086707 | 0.580953 |
| CCAR1 | 15.9624661 | 15.05047 |
| CCBE1 | 0 | 0 |
| CCBL1 | 0.54611249 | 0.657616 |
| CCBL2 | 9.09002457 | 8.703932 |
| CCBP2 | 2.32273082 | 1.702621 |
| CCDC101 | 14.1934684 | 14.73365 |
| CCDC102A | 0.07790366 | 0.098333 |
| CCDC102B | 0.00720292 | 0 |
| CCDC103 | 0.08369957 | 0.05705 |
| CCDC104 | 6.00492516 | 4.872636 |
| CCDC105 | 0.01213934 | 0.01379 |
| CCDC106 | 0.17934301 | 0.23969 |
| CCDC107 | 1.44291487 | 1.222876 |
| CCDC108 | 0.00543782 | 0.003089 |

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| CCDC109A | 10.8156755 | 9.532985 |
| CCDC109B | 0.16503399 | 0.149985 |
| CCDC11 | 0.04610818 | 0.104759 |
| CCDC110 | 0.00725512 | 0 |
| CCDC111 | 3.42635023 | 1.654785 |
| CCDC112 | 5.2325815 | 4.782003 |
| CCDC113 | 0.00398811 | 0.004531 |
| CCDC114 | 0.20894739 | 0.22995 |
| CCDC115 | 11.4334829 | 9.109467 |
| CCDC116 | 0.05755109 | 0.152551 |
| CCDC117 | 7.44460276 | 6.377354 |
| CCDC12 | 26.6370741 | 32.47015 |
| CCDC120 | 1.06397068 | 0.99822 |
| CCDC121 | 0.50573842 | 0.540731 |
| CCDC122 | 0.38722611 | 0.535007 |
| CCDC123 | 0.69411841 | 0.632657 |
| CCDC124 | 9.8234695 | 10.23332 |
| CCDC125 | 19.7286914 | 16.43422 |
| CCDC126 | 8.03434604 | 6.152371 |
| CCDC127 | 4.5604239 | 3.767792 |
| CCDC129 | 0 | 0 |
| CCDC13 | 0.35661339 | 0.295399 |
| CCDC130 | 22.558428 | 21.39708 |
| CCDC132 | 0.92858127 | 0.875873 |
| CCDC134 | 3.83325674 | 3.644442 |
| CCDC135 | 0.35391316 | 0.33641 |
| CCDC136 | 0.40860168 | 0.401141 |
| CCDC137 | 9.83973526 | 8.7205 |
| CCDC137P | 0 | 0 |
| CCDC138 | 0.30638005 | 0.250163 |
| CCDC14 | 6.88959973 | 6.623027 |
| CCDC140 | 0 | 0 |
| CCDC141 | 0.15549637 | 0.113558 |
| CCDC142 | 0.73654075 | 0.671579 |
| CCDC144A | 0.84058032 | 0.774586 |
| CCDC144B | 0.3922296 | 0.393768 |
| CCDC144C | 0 | 0 |
| CCDC144NL | 0 | 0.008512 |
| CCDC146 | 4.02465081 | 2.57985 |
| CCDC147 | 0.30462297 | 0.266752 |
| CCDC148 | 0 | 0.010926 |
| CCDC149 | 0.00304054 | 0.013816 |
| CCDC15 | 0.21603217 | 0.165656 |
| CCDC150 | 0.10840741 | 0.097226 |
| CCDC151 | 0 | 0.011048 |
| CCDC152 | 0.0240909 | 0.03421 |
| CCDC153 | 6.3596829 | 5.947922 |

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| CCDC154 | 0.62375468 | 0.610482 |
| CCDC155 | 0 | 0.010199 |
| CCDC157 | 2.40149468 | 2.322495 |
| CCDC158 | 0.02319397 | 0.019762 |
| CCDC17 | 3.04828218 | 2.574975 |
| CCDC18 | 1.85517626 | 1.548584 |
| CCDC19 | 7.67219598 | 9.886705 |
| CCDC21 | 23.0824472 | 22.2523 |
| CCDC22 | 6.10237967 | 5.964679 |
| CCDC23 | 9.77493457 | 7.422941 |
| CCDC24 | 0.12934243 | 0.228566 |
| CCDC25 | 2.69170446 | 2.408196 |
| CCDC27 | 0 | 0 |
| CCDC28A | 18.2566209 | 14.57694 |
| CCDC28B | 2.90087234 | 2.560092 |
| CCDC29 | 0.51149973 | 0.489324 |
| CCDC3 | 0.00768189 | 0 |
| CCDC33 | 0.00555051 | 0 |
| CCDC34 | 0.03572092 | 0.04058 |
| CCDC36 | 0.06167796 | 0.124564 |
| CCDC37 | 0.05039629 | 0.148853 |
| CCDC38 | 0 | 0 |
| CCDC39 | 1.6584589 | 1.536976 |
| CCDC40 | 0.01468933 | 0.066749 |
| CCDC41 | 0.69758462 | 0.725811 |
| CCDC42 | 0.06120911 | 0.017384 |
| CCDC43 | 3.16658399 | 2.915816 |
| CCDC44 | 3.50662692 | 3.03277 |
| CCDC45 | 13.5246555 | 13.72218 |
| CCDC46 | 0.00535814 | 0.006087 |
| CCDC47 | 16.1610324 | 16.24942 |
| CCDC48 | 0 | 0.024335 |
| CCDC49 | 20.7636423 | 18.81081 |
| CCDC50 | 0.21849992 | 0.224198 |
| CCDC51 | 1.04707824 | 1.030898 |
| CCDC52 | 1.32759065 | 1.135507 |
| CCDC53 | 9.1424495 | 7.952983 |
| CCDC54 | 0 | 0 |
| CCDC55 | 9.98682187 | 11.60325 |
| CCDC56 | 5.77987186 | 5.868188 |
| CCDC57 | 6.67170162 | 8.782579 |
| CCDC58 | 0.17569914 | 0.43246 |
| CCDC58P1 | 0 | 0 |
| CCDC59 | 10.8063154 | 11.1197 |
| CCDC6 | 0.41610872 | 0.334353 |
| CCDC60 | 0 | 0 |
| CCDC61 | 6.87787539 | 6.622392 |

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| CCDC62 | 0.97272553 | 0.918371 |
| CCDC63 | 0 | 0.01228 |
| CCDC64 | 0.77113353 | 1.054325 |
| CCDC64B | 0.22058602 | 0.2374 |
| CCDC65 | 0.34752613 | 0.328996 |
| CCDC66 | 7.35753174 | 6.895764 |
| CCDC67 | 0 | 0.008959 |
| CCDC68 | 0 | 0.005679 |
| CCDC69 | 104.71221 | 101.0145 |
| CCDC7 | 0.29201849 | 0.287506 |
| CCDC70 | 0 | 0 |
| CCDC71 | 8.50528013 | 8.778964 |
| CCDC72 | 144.543474 | 144.4456 |
| CCDC73 | 0.06807704 | 0.071388 |
| CCDC74A | 0.04329169 | 0.131147 |
| CCDC74B | 0.11434578 | 0.032475 |
| CCDC75 | 4.3990947 | 3.040268 |
| CCDC76 | 1.12887683 | 0.748079 |
| CCDC77 | 3.43989852 | 2.792633 |
| CCDC78 | 0.22186879 | 0.207568 |
| CCDC79 | 0.0085958 | 0 |
| CCDC8 | 0.00630634 | 0.007164 |
| CCDC80 | 0.00464648 | 0.005278 |
| CCDC81 | 0.02512988 | 0.009516 |
| CCDC82 | 9.49605607 | 8.364163 |
| CCDC83 | 0.00896603 | 0 |
| CCDC84 | 16.3025029 | 15.38026 |
| CCDC85A | 0.01055754 | 0 |
| CCDC85B | 4.36889994 | 10.12015 |
| CCDC85C | 0.05932028 | 0.071601 |
| CCDC86 | 8.72316461 | 9.554044 |
| CCDC87 | 0.00721281 | 0 |
| CCDC88A | 1.18235357 | 0.893015 |
| CCDC88B | 104.16843 | 119.5227 |
| CCDC88C | 2.93703208 | 3.157887 |
| CCDC89 | 0 | 0 |
| CCDC9 | 14.5598899 | 15.94256 |
| CCDC90A | 1.31729087 | 0.971729 |
| CCDC90B | 10.2722233 | 9.180744 |
| CCDC91 | 3.25960163 | 3.099438 |
| CCDC92 | 8.92374616 | 12.22896 |
| CCDC93 | 21.4864399 | 21.05152 |
| CCDC94 | 7.3746687 | 6.975751 |
| CCDC96 | 0.20507754 | 0.188596 |
| CCDC97 | 13.481022 | 15.08458 |
| CCDC99 | 0.63044471 | 0.420765 |
| CCHCR1 | 2.98379284 | 2.617114 |

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|-------------|------------|----------|
| CCIN | 0.08656853 | 0.08605 |
| CCK | 0 | 0 |
| CCKAR | 0 | 0 |
| CCKBR | 0 | 0.011267 |
| CCL1 | 0.03879212 | 0 |
| CCL11 | 0 | 0 |
| CCL13 | 0 | 0 |
| CCL14 | 0.01391485 | 0 |
| CCL14-CCL15 | 0 | 0 |
| CCL15 | 0 | 0 |
| CCL16 | 0 | 0 |
| CCL17 | 0 | 0.038838 |
| CCL18 | 0.08191687 | 0.03102 |
| CCL19 | 0.06147758 | 0.03492 |
| CCL2 | 0.70178007 | 0.47834 |
| CCL20 | 0.29964842 | 0.39714 |
| CCL21 | 0 | 0 |
| CCL22 | 0.35599213 | 0.379653 |
| CCL23 | 19.2423829 | 15.05717 |
| CCL24 | 0.29201849 | 0.066348 |
| CCL25 | 0 | 0 |
| CCL26 | 0.07482324 | 0 |
| CCL27 | 0.094284 | 0.053554 |
| CCL28 | 0 | 0.058542 |
| CCL3 | 0.94970127 | 0.959001 |
| CCL3L1 | 0.16111365 | 0.030505 |
| CCL3L2 | 0 | 0 |
| CCL3L3 | 1.35647297 | 1.510155 |
| CCL4 | 8.41643683 | 7.341001 |
| CCL4L1 | 9.66718556 | 5.835361 |
| CCL4L2 | 0.44380646 | 0.8823 |
| CCL5 | 1.05981343 | 0.970939 |
| CCL7 | 0 | 0.029671 |
| CCL8 | 0 | 0 |
| CCM2 | 48.9344975 | 50.68076 |
| CCNA1 | 0.21007064 | 0.166013 |
| CCNA2 | 0.16531711 | 0.093901 |
| CCNB1 | 0.20091095 | 0.091295 |
| CCNB1IP1 | 0.6115247 | 0.492607 |
| CCNB2 | 0.9727516 | 2.320629 |
| CCNB3 | 0.01397651 | 0.010585 |
| CCNC | 5.25861117 | 5.632206 |
| CCND1 | 0.13235811 | 0.194912 |
| CCND2 | 25.8577399 | 22.57403 |
| CCND2P | 0 | 0 |
| CCND3 | 30.7874017 | 28.87309 |
| CCND3P | 0 | 0 |

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| CCNDBP1 | 69.3182526 | 65.83648 |
| CCNE1 | 0.05293386 | 0.07216 |
| CCNE2 | 0.85581655 | 0.569319 |
| CCNF | 0.19127313 | 0.189432 |
| CCNG1 | 13.2473216 | 11.41027 |
| CCNG2 | 82.1117145 | 106.8852 |
| CCNH | 20.5981109 | 17.78383 |
| CCNI | 176.902785 | 177.7255 |
| CCNI2 | 0.00892795 | 0 |
| CCNJ | 2.20410474 | 2.048119 |
| CCNJL | 3.16600127 | 2.976519 |
| CCNK | 29.2063308 | 28.88027 |
| CCNL1 | 63.0679832 | 62.20137 |
| CCNL2 | 46.0729685 | 46.47827 |
| CCNO | 0.01467225 | 0 |
| CCNT1 | 8.44124463 | 7.738478 |
| CCNT2 | 17.6272052 | 16.72634 |
| CCNY | 18.3713138 | 19.61711 |
| CCNYL1 | 5.07767385 | 4.169059 |
| CCNYL2 | 0.02370387 | 0.040392 |
| CCNYL3 | 0 | 0 |
| CCPG1 | 56.7162854 | 55.78303 |
| CCR1 | 1.38283193 | 0.687277 |
| CCR10 | 0.15211252 | 0.307204 |
| CCR2 | 0.11155579 | 0.126729 |
| CCR3 | 379.472092 | 295.6105 |
| CCR4 | 0.07613276 | 0.014415 |
| CCR5 | 0.03445834 | 0.052194 |
| CCR6 | 0.06843069 | 0.07126 |
| CCR7 | 1.27719452 | 1.05521 |
| CCR8 | 0.01413943 | 0.016063 |
| CCR9 | 0 | 0 |
| CCRK | 0.64639572 | 0.476313 |
| CCRL1 | 0 | 0 |
| CCRL1P | 0 | 0 |
| CCRL2 | 1.05915386 | 0.934412 |
| CCRN4L | 0.9684134 | 1.136804 |
| CCS | 24.1424585 | 24.07027 |
| CCT2 | 6.12252473 | 4.608335 |
| CCT3 | 10.5628213 | 10.16485 |
| CCT4 | 6.6300958 | 6.375503 |
| CCT5 | 11.8564825 | 10.57739 |
| CCT6A | 14.0879188 | 13.60124 |
| CCT6B | 0.92622603 | 1.183733 |
| CCT6P1 | 0 | 0 |
| CCT7 | 14.8021886 | 13.59633 |
| CCT7P2 | 0 | 0 |

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| CCT8 | 19.3277713 | 17.16703 |
| CCT8L1 | 0 | 0.01176 |
| CCT8L2 | 0 | 0 |
| CD109 | 0.03115853 | 0.037925 |
| CD14 | 0.036126 | 0.01368 |
| CD151 | 38.7387312 | 68.91062 |
| CD160 | 0.71478033 | 0.735398 |
| CD163 | 0 | 0 |
| CD163L1 | 0.00458768 | 0 |
| CD164 | 96.5124848 | 128.2827 |
| CD164L2 | 0.05464673 | 0.077599 |
| CD177 | 0.01778793 | 0 |
| CD177P | 0 | 0 |
| CD180 | 0.054189 | 0.052765 |
| CD19 | 0.2048622 | 0.208229 |
| CD1A | 0 | 0 |
| CD1B | 0 | 0 |
| CD1C | 0.0324465 | 0 |
| CD1D | 0.01666913 | 0.012624 |
| CD1E | 0.01019163 | 0 |
| CD2 | 0.19226299 | 0.327621 |
| CD200 | 0.0458868 | 0.020851 |
| CD200R1 | 6.27163606 | 2.471217 |
| CD200R1L | 0.04866975 | 0 |
| CD207 | 0 | 0 |
| CD209 | 0 | 0 |
| CD22 | 0.27521742 | 0.283568 |
| CD226 | 0.05579125 | 0.099597 |
| CD24 | 11.0624104 | 13.77229 |
| CD244 | 27.9484099 | 14.28452 |
| CD247 | 0.35021372 | 0.284177 |
| CD248 | 0.00821944 | 0.018675 |
| CD24L1 | 0 | 0 |
| CD24L2 | 0 | 0 |
| CD24P4 | 0 | 0 |
| CD27 | 0.6689878 | 0.361896 |
| CD274 | 0.12287531 | 0.046529 |
| CD276 | 0.0061821 | 0.007023 |
| CD28 | 0.02761404 | 0.018822 |
| CD2AP | 10.18633 | 9.881515 |
| CD2BP2 | 31.2767931 | 29.4078 |
| CD300A | 68.2961518 | 61.31228 |
| CD300C | 1.27510247 | 0.991933 |
| CD300E | 0.08535317 | 0.129283 |
| CD300LB | 134.794918 | 105.2548 |
| CD300LD | 0.06529606 | 0 |
| CD300LF | 37.4607091 | 51.93891 |

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| CD300LG | 0.00762893 | 0 |
| CD302 | 43.2501468 | 31.56868 |
| CD320 | 0.53824847 | 0.515918 |
| CD33 | 0.38723324 | 0.35844 |
| CD34 | 0.00747966 | 0 |
| CD36 | 0.01549113 | 0.013199 |
| CD37 | 176.494565 | 183.0232 |
| CD38 | 0.7755823 | 0.624761 |
| CD3D | 0.31211692 | 0.290103 |
| CD3E | 0.27792903 | 0.236799 |
| CD3EAP | 0.76141643 | 1.090312 |
| CD3G | 0.04811289 | 0.091095 |
| CD4 | 0.96894049 | 1.000665 |
| CD40 | 0.18215014 | 0.162584 |
| CD40LG | 0.06882269 | 0.052122 |
| CD44 | 18.9015231 | 23.43508 |
| CD46 | 165.458315 | 142.4958 |
| CD46P | 0 | 0 |
| CD47 | 29.9451683 | 27.76767 |
| CD48 | 18.785249 | 6.384244 |
| CD5 | 0.23302298 | 0.234464 |
| CD52 | 343.732935 | 302.8916 |
| CD53 | 125.480415 | 116.594 |
| CD55 | 49.7782287 | 37.59815 |
| CD58 | 72.7021984 | 88.83162 |
| CD59 | 8.24099296 | 6.420601 |
| CD5L | 0 | 0.010677 |
| CD6 | 0.29406057 | 0.23965 |
| CD63 | 742.85368 | 756.08 |
| CD68 | 2.95668717 | 3.26876 |
| CD69 | 20.8371568 | 35.78491 |
| CD7 | 0.68828051 | 0.856364 |
| CD70 | 0.04605768 | 0.104645 |
| CD72 | 0.14940481 | 0.154297 |
| CD74 | 689.739176 | 648.3372 |
| CD79A | 2.25629545 | 3.151771 |
| CD79B | 0.34931325 | 0.415722 |
| CD80 | 0.02287849 | 0.008663 |
| CD81 | 163.076231 | 223.2627 |
| CD82 | 81.0977051 | 101.0695 |
| CD83 | 6.66056691 | 11.0365 |
| CD84 | 12.0786547 | 5.315093 |
| CD86 | 0.02212416 | 0.083778 |
| CD8A | 0.3246418 | 0.292869 |
| CD8B | 0.04384845 | 0.087172 |
| CD8BP | 0 | 0 |
| CD9 | 335.107225 | 343.1811 |

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| CD93 | 0.04078933 | 0.021386 |
| CD96 | 6.25927059 | 5.900651 |
| CD97 | 195.659792 | 198.3949 |
| CD99 (NC_00002 | 1.86967373 | 1.40955 |
| CD99 (NC_00002 | 1.07081314 | 1.911581 |
| CD99L2 | 2.06462335 | 2.080423 |
| CD99P1 | 0 | 0 |
| CDA | 24.7485667 | 21.54636 |
| CDADC1 | 3.79763753 | 3.592766 |
| CDAN1 | 7.76114754 | 7.402869 |
| CDC10L | 0 | 0 |
| CDC10P | 0 | 0 |
| CDC123 | 26.1050944 | 18.40758 |
| CDC14A | 4.38677621 | 3.278001 |
| CDC14B | 3.23269497 | 2.819799 |
| CDC14BL | 0 | 0 |
| CDC14C | 0 | 0 |
| CDC16 | 15.395347 | 13.56233 |
| CDC2 | 0.05238 | 0.047604 |
| CDC20 | 0.01255244 | 0.01426 |
| CDC20B | 0 | 0.016149 |
| CDC20P | 0 | 0 |
| CDC23 | 5.95773245 | 4.443917 |
| CDC25A | 0.11913976 | 0.045115 |
| CDC25B | 0.24601068 | 0.175482 |
| CDC25C | 0 | 0 |
| CDC26 | 36.7943292 | 33.8555 |
| CDC27 | 6.63622547 | 6.210724 |
| CDC27P2 | 0 | 0 |
| CDC2L1 | 47.9550357 | 44.71301 |
| CDC2L2 | 59.9077923 | 60.35807 |
| CDC2L5 | 16.6067384 | 17.3561 |
| CDC2L6 | 5.61680123 | 5.380861 |
| CDC34 | 24.1536674 | 26.49677 |
| CDC37 | 72.3367012 | 71.65533 |
| CDC37L1 | 7.18179738 | 7.10364 |
| CDC37P1 | 0 | 0 |
| CDC37P2 | 0 | 0 |
| CDC40 | 13.3256834 | 12.53457 |
| CDC42 | 86.8536096 | 83.14743 |
| CDC42BPA | 0.04202665 | 0.047743 |
| CDC42BPB | 0.07216574 | 0.053466 |
| CDC42BPG | 0.61714028 | 1.11206 |
| CDC42EP1 | 0.03886383 | 0 |
| CDC42EP2 | 0.10613494 | 0.144685 |
| CDC42EP3 | 0.76580583 | 0.875967 |
| CDC42EP4 | 3.76977879 | 3.727956 |

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| CDC42EP5 | 0 | 0 |
| CDC42P1 | 0 | 0 |
| CDC42P2 | 0 | 0 |
| CDC42SE1 | 279.194993 | 303.4152 |
| CDC42SE2 | 116.199881 | 99.09349 |
| CDC45L | 0.01100803 | 0.012505 |
| CDC5L | 15.8671164 | 16.60811 |
| CDC6 | 0.11018844 | 0.062588 |
| CDC7 | 0.11697842 | 0.090924 |
| CDC73 | 10.8231066 | 9.409771 |
| CDCA2 | 0.01695591 | 0.025683 |
| CDCA3 | 0.10782221 | 0.061244 |
| CDCA4 | 5.21133356 | 8.393381 |
| CDCA5 | 0.13875413 | 0.074177 |
| CDCA7 | 0.01496465 | 0.017 |
| CDCA7L | 2.11531014 | 1.927259 |
| CDCA8 | 0.41995885 | 0.165941 |
| CDCP1 | 0.0033689 | 0 |
| CDCP2 | 0 | 0.008772 |
| CDGAP | 0.08848388 | 0.130084 |
| CDH1 | 0.0698661 | 0.054566 |
| CDH10 | 0 | 0 |
| CDH11 | 0 | 0.006547 |
| CDH12 | 0.19839783 | 0.181406 |
| CDH12P | 0 | 0 |
| CDH13 | 0.15928281 | 0.068635 |
| CDH15 | 0.00735409 | 0.008354 |
| CDH16 | 0.00742158 | 0.008431 |
| CDH17 | 0 | 0 |
| CDH18 | 0 | 0 |
| CDH19 | 0 | 0.007499 |
| CDH2 | 0 | 0 |
| CDH20 | 0 | 0.008366 |
| CDH22 | 0 | 0.013063 |
| CDH23 | 0.52271386 | 0.547486 |
| CDH24 | 1.43206589 | 1.62685 |
| CDH26 | 1.42355788 | 2.995307 |
| CDH29 | 0.00849165 | 0 |
| CDH3 | 0.01475117 | 0.016758 |
| CDH4 | 0.01374205 | 0.039028 |
| CDH5 | 0.01528004 | 0.005786 |
| CDH6 | 0 | 0 |
| CDH7 | 0.00710796 | 0 |
| CDH8 | 0 | 0 |
| CDH9 | 0 | 0 |
| CDIPT | 37.6750594 | 36.88554 |
| CDK10 | 3.64533143 | 3.52666 |

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| CDK2 | 3.75943554 | 3.010378 |
| CDK2AP1 | 95.1021936 | 98.12861 |
| CDK2AP2 | 10.451634 | 9.325246 |
| CDK3 | 4.36576936 | 4.366259 |
| CDK4 | 2.33129103 | 2.135259 |
| CDK4PS | 0 | 0 |
| CDK5 | 5.08528233 | 6.869332 |
| CDK5R1 | 0.62737755 | 0.570169 |
| CDK5R2 | 0.01695591 | 0.009631 |
| CDK5RAP1 | 5.84930336 | 4.863794 |
| CDK5RAP2 | 8.69699485 | 7.67544 |
| CDK5RAP3 | 85.429357 | 77.60125 |
| CDK6 | 4.50823709 | 5.64738 |
| CDK7 | 14.2756038 | 12.48576 |
| CDK7PS | 0 | 0 |
| CDK8 | 6.64395704 | 6.75102 |
| CDK9 | 56.799013 | 66.22514 |
| CDKAL1 | 1.34464326 | 1.339074 |
| CDKL1 | 1.44694291 | 1.400232 |
| CDKL2 | 0.02229622 | 0.015197 |
| CDKL3 | 0.09295018 | 0.052796 |
| CDKL4 | 0 | 0.015243 |
| CDKL5 | 1.13553521 | 1.099883 |
| CDKN1A | 69.1081512 | 126.4451 |
| CDKN1B | 63.4593806 | 59.29209 |
| CDKN1C | 1.30727446 | 2.759782 |
| CDKN2A | 0.12942285 | 0.080196 |
| CDKN2AIP | 13.4707365 | 14.19625 |
| CDKN2AIPNL | 1.76945855 | 1.359796 |
| CDKN2B | 0.0369421 | 0.023981 |
| CDKN2BAS | 0 | 0 |
| CDKN2C | 6.7369301 | 6.332735 |
| CDKN2D | 30.2156021 | 34.02327 |
| CDKN3 | 0.14126762 | 0.133735 |
| CDO1 | 0.02605369 | 0.014799 |
| CDON | 0.00522563 | 0.008905 |
| CDR1 | 0 | 0 |
| CDR2 | 2.21769775 | 2.050831 |
| CDR2L | 0.02973039 | 0.033774 |
| CDRT1 | 0 | 0.017289 |
| CDRT15 | 0.07416342 | 0.084251 |
| CDRT15L1 | 0.01291482 | 0.029343 |
| CDRT15L2 | 0 | 0 |
| CDRT15P | 0 | 0 |
| CDRT4 | 2.93966058 | 2.562203 |
| CDS1 | 0.00463317 | 0.010527 |
| CDS2 | 14.3616074 | 11.58922 |

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| CDSN | 0 | 0 |
| CDT1 | 0.09431924 | 0.169651 |
| CDV3 | 48.5237271 | 46.70082 |
| CDX1 | 0.01186531 | 0 |
| CDX2 | 0 | 0 |
| CDX4 | 0 | 0 |
| CDY1 | 0 | 0 |
| CDY10P | 0 | 0 |
| CDY11P | 0 | 0 |
| CDY12P | 0 | 0 |
| CDY13P | 0 | 0 |
| CDY14P | 0 | 0 |
| CDY15P | 0 | 0 |
| CDY16P | 0 | 0 |
| CDY17P | 0 | 0 |
| CDY18P | 0 | 0 |
| CDY19P | 0 | 0 |
| CDY1B | 0 | 0 |
| CDY20P | 0 | 0 |
| CDY21P | 0 | 0 |
| CDY22P | 0 | 0 |
| CDY23P | 0 | 0 |
| CDY24P | 0 | 0 |
| CDY2A | 0 | 0 |
| CDY2B | 0 | 0 |
| CDY3P | 0 | 0 |
| CDY4P | 0 | 0 |
| CDY5P | 0 | 0 |
| CDY6P | 0 | 0 |
| CDY7P | 0 | 0 |
| CDY8P | 0 | 0 |
| CDY9P | 0 | 0 |
| CDYL | 6.60527865 | 6.242628 |
| CDYL2 | 2.70809272 | 3.033708 |
| CEACAM1 | 9.47552805 | 7.239982 |
| CEACAM16 | 0 | 0 |
| CEACAM18 | 0.08782511 | 0.059862 |
| CEACAM19 | 0.00935291 | 0.010625 |
| CEACAM20 | 0 | 0 |
| CEACAM21 | 4.20816043 | 4.88599 |
| CEACAM3 | 0.38360725 | 0.228268 |
| CEACAM4 | 0.50600382 | 0.277503 |
| CEACAM5 | 0.01752111 | 0.01327 |
| CEACAM6 | 0.00799138 | 0.018157 |
| CEACAM7 | 0 | 0 |
| CEACAM8 | 0.00912954 | 0 |
| CEACAMP1 | 0 | 0 |

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|-----------|------------|----------|
| CEACAMP10 | 0 | 0 |
| CEACAMP11 | 0 | 0 |
| CEACAMP2 | 0 | 0 |
| CEACAMP3 | 0 | 0 |
| CEACAMP4 | 0 | 0 |
| CEACAMP5 | 0 | 0 |
| CEACAMP6 | 0 | 0 |
| CEACAMP7 | 0 | 0 |
| CEACAMP8 | 0 | 0 |
| CEACAMP9 | 0 | 0 |
| CEBPA | 0.02644696 | 0.070103 |
| CEBPB | 61.9543367 | 78.19545 |
| CEBPD | 16.9916943 | 19.47467 |
| CEBPE | 238.263742 | 334.9484 |
| CEBPG | 4.18142958 | 4.37297 |
| CEBPZ | 9.79287938 | 9.353208 |
| CECR1 | 1.32319972 | 1.142177 |
| CECR2 | 0.00372988 | 0.004237 |
| CECR4 | 0 | 0 |
| CECR5 | 0.22367373 | 0.228687 |
| CECR6 | 0 | 0 |
| CECR7 | 0 | 0 |
| CECR8 | 0 | 0 |
| CEL | 0.32631596 | 0.320605 |
| CELA1 | 0.08834173 | 0.100358 |
| CELA3A | 0 | 0.026334 |
| CELA3B | 0 | 0 |
| CELP | 0 | 0 |
| CELSR1 | 0.01661498 | 0.029361 |
| CELSR2 | 0.01196888 | 0.013597 |
| CELSR3 | 0.04745728 | 0.019967 |
| CEMP1 | 22.7284581 | 21.40243 |
| CEND1 | 0.03832077 | 0 |
| CENPA | 0 | 0 |
| CENPB | 13.2000581 | 16.96347 |
| CENPC1 | 14.0817609 | 15.55492 |
| CENPC2 | 0 | 0 |
| CENPE | 0.13671836 | 0.116486 |
| CENPF | 0.0959781 | 0.132231 |
| CENPH | 0.57520704 | 0.412702 |
| CENPI | 0.02461022 | 0 |
| CENPJ | 1.40223066 | 1.579104 |
| CENPK | 0.37653683 | 0.372558 |
| CENPL | 0.74807883 | 0.604686 |
| CENPM | 0.04159314 | 0.023625 |
| CENPN | 0.58205718 | 0.553271 |
| CENPO | 0.27171197 | 0.264574 |

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| CENPP | 0.33792905 | 0.432752 |
| CENPQ | 2.57949662 | 2.059538 |
| CENPT | 5.95344126 | 5.215 |
| CENPV | 24.8004978 | 27.72232 |
| CEP110 | 20.9291311 | 16.80411 |
| CEP120 | 8.83360602 | 7.56847 |
| CEP135 | 2.89608174 | 2.439061 |
| CEP152 | 3.85691278 | 2.863214 |
| CEP164 | 2.2415065 | 1.880082 |
| CEP170 | 13.2056799 | 13.30666 |
| CEP170L | 0 | 0 |
| CEP192 | 9.68757703 | 8.979857 |
| CEP250 | 2.32215562 | 1.831154 |
| CEP290 | 1.23429661 | 1.146966 |
| CEP350 | 11.8767495 | 11.21301 |
| CEP55 | 0.00791021 | 0.008986 |
| CEP57 | 14.114535 | 12.69889 |
| CEP63 | 4.90788535 | 3.467822 |
| CEP68 | 0.58822147 | 0.566365 |
| CEP70 | 0.17369781 | 0.134539 |
| CEP72 | 0.19145583 | 0.237269 |
| CEP76 | 1.56828889 | 1.781601 |
| CEP78 | 0.47402564 | 0.34742 |
| CEP97 | 1.27744019 | 0.817649 |
| CEPT1 | 5.85628895 | 5.879725 |
| CER1 | 0 | 0 |
| CERCAM | 0.0547331 | 0.10659 |
| CERK | 38.3280668 | 59.62411 |
| CERKL | 2.12158135 | 1.455044 |
| CES1 | 0.29245368 | 0.344097 |
| CES2 | 5.52428173 | 4.755215 |
| CES3 | 0.11353354 | 0.079842 |
| CES4 | 0 | 0 |
| CES7 | 0 | 0.010987 |
| CES8 | 0.13787102 | 0.190186 |
| CETN1 | 0 | 0 |
| CETN2 | 8.60481137 | 9.310769 |
| CETN3 | 2.2267153 | 1.897188 |
| CETP | 0.07347233 | 0.055644 |
| CFB | 0.00800355 | 0.009092 |
| CFC1 | 0 | 0 |
| CFC1B | 0.01812529 | 0 |
| CFD | 182.882738 | 187.1102 |
| CFDP1 | 6.7399419 | 6.14402 |
| CFH | 0.00960938 | 0 |
| CFHR1 | 0.01621074 | 0 |
| CFHR2 | 0 | 0 |

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| CFHR3 | 0 | 0 |
| CFHR4 | 0 | 0 |
| CFHR5 | 0 | 0 |
| CFI | 0 | 0 |
| CFL1 | 370.729983 | 354.4854 |
| CFL2 | 1.57394867 | 1.504926 |
| CFLAR | 23.9187952 | 20.87562 |
| CFLP1 | 0 | 0 |
| CFLP2 | 0 | 0 |
| CFLP3 | 0 | 0 |
| CFLP4 | 0 | 0 |
| CFLP5 | 0 | 0 |
| CFP | 1.3740498 | 1.184163 |
| CFTR | 0 | 0 |
| CG030 | 0 | 0 |
| CGA | 0.59731054 | 0.305349 |
| CGB | 0 | 0 |
| CGB1 | 0 | 0 |
| CGB2 | 0 | 0 |
| CGB5 | 0 | 0 |
| CGB7 | 0.02389242 | 0 |
| CGB8 | 0.02370387 | 0 |
| CGGBP1 | 26.7043474 | 26.95823 |
| CGI-148P | 0 | 0 |
| CGN | 0.004121 | 0.014045 |
| CGNL1 | 0.01175092 | 0.003337 |
| CGREF1 | 0.02275469 | 0.012925 |
| CGRRF1 | 4.33856036 | 4.224577 |
| CH25H | 0 | 0 |
| CHAC1 | 0 | 0.015311 |
| CHAC2 | 0 | 0 |
| CHAD | 0.01240433 | 0.014092 |
| CHADL | 0.06640452 | 0.00943 |
| CHAF1A | 2.15096117 | 1.750479 |
| CHAF1B | 0.5904437 | 0.524026 |
| CHAT | 0 | 0.008756 |
| CHCHD1 | 12.2564726 | 11.40486 |
| CHCHD10 | 3.05206417 | 3.046927 |
| CHCHD2 | 68.3645731 | 68.07989 |
| CHCHD3 | 5.3914485 | 5.001647 |
| CHCHD4 | 1.99242538 | 1.533769 |
| CHCHD5 | 5.59217569 | 5.501028 |
| CHCHD6 | 0.08890203 | 0.302982 |
| CHCHD7 | 13.5474996 | 12.43901 |
| CHCHD8 | 3.2940543 | 3.478982 |
| CHCHD9 | 0 | 0 |
| CHD1 | 29.2505108 | 27.82465 |

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| CHD1L | 5.44143947 | 4.554835 |
| CHD2 | 60.2297787 | 57.44768 |
| CHD3 | 20.9423799 | 28.81667 |
| CHD4 | 45.3806705 | 44.70048 |
| CHD5 | 0.01089847 | 0.009905 |
| CHD6 | 11.1876051 | 10.08145 |
| CHD7 | 29.4845842 | 31.95125 |
| CHD8 | 22.536252 | 21.07699 |
| CHD9 | 7.69510237 | 10.15253 |
| CHDH | 0.01154604 | 0 |
| CHEK1 | 0.18198123 | 0.169817 |
| CHEK2 | 0.33860624 | 0.264455 |
| CHERP | 10.6025173 | 10.58644 |
| CHFR | 30.4123573 | 30.35494 |
| CHGA | 0.0102914 | 0.09353 |
| CHGB | 0.0079281 | 0 |
| CHI3L1 | 0.01144547 | 0.026004 |
| CHI3L2 | 0.03915332 | 0.029653 |
| CHIA | 0.01247794 | 0.014175 |
| CHIC1 | 0.06999314 | 0.044942 |
| CHIC2 | 34.7618805 | 43.20551 |
| CHID1 | 0.66650905 | 0.588211 |
| CHIT1 | 0.06379598 | 0.041413 |
| CHKA | 16.4596536 | 21.22144 |
| CHKB | 8.59208236 | 6.956921 |
| CHKB-CPT1B | 0 | 0 |
| CHL1 | 0.00549682 | 0.003122 |
| CHM | 0.74200815 | 0.63521 |
| CHML | 0.00297514 | 0.00338 |
| CHMP1A | 40.4079184 | 40.23449 |
| CHMP1B | 0.22674377 | 0.312224 |
| CHMP2A | 42.7032425 | 39.12895 |
| CHMP2B | 20.2652828 | 17.87748 |
| CHMP4A | 21.4863515 | 22.72656 |
| CHMP4B | 71.7304563 | 81.35546 |
| CHMP4C | 0 | 0 |
| CHMP5 | 25.5376798 | 24.15242 |
| CHMP6 | 9.07222814 | 7.665053 |
| CHMP7 | 11.1539072 | 10.33154 |
| CHN1 | 0.05426892 | 0.026422 |
| CHN2 | 0.18587136 | 0.16147 |
| CHODL | 0.01652285 | 0.028155 |
| CHORDC1 | 4.9131571 | 4.882864 |
| CHORDC2P | 0 | 0 |
| CHP | 44.7976247 | 40.64905 |
| CHP2 | 0.00888645 | 0 |
| CHPF | 0.48503773 | 0.598925 |

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| CHPT1 | 127.131468 | 136.6039 |
| CHRAC1 | 9.4529888 | 9.850219 |
| CHRD | 0.00597141 | 0 |
| CHRD1 | 0.00505538 | 0 |
| CHRD2 | 0.01252999 | 0 |
| CHRFAM7A | 5.99567695 | 5.565949 |
| CHRFAM7AP1 | 0 | 0 |
| CHRFAM7AP2 | 0 | 0 |
| CHRM1 | 0.00744787 | 0 |
| CHRM2 | 0 | 0 |
| CHRM3 | 0.04590684 | 0.034767 |
| CHRM4 | 0.20051406 | 0.276599 |
| CHRM5 | 0.13837006 | 0.070736 |
| CHRNA1 | 0 | 0 |
| CHRNA10 | 2.57276543 | 2.861301 |
| CHRNA2 | 0.01033948 | 0.017619 |
| CHRNA3 | 0.01402156 | 0.015929 |
| CHRNA4 | 0.00383184 | 0 |
| CHRNA5 | 0.06061669 | 0.137723 |
| CHRNA6 | 0 | 0 |
| CHRNA7 | 1.1427863 | 1.254216 |
| CHRNA9 | 0.03333826 | 0.075746 |
| CHRNA1 | 2.03610099 | 1.646573 |
| CHRNA2 | 0.036764 | 0.025059 |
| CHRNA3 | 0 | 0 |
| CHRNA4 | 0.00858878 | 0 |
| CHRNA5 | 0.02415317 | 0.013719 |
| CHRNA6 | 1.79484533 | 1.815657 |
| CHRNA7 | 0.00961378 | 0.032764 |
| CHST1 | 0.00773559 | 0.008788 |
| CHST10 | 0.01493807 | 0.01697 |
| CHST11 | 59.9705566 | 53.07641 |
| CHST12 | 10.5779615 | 8.787164 |
| CHST13 | 25.4746247 | 30.5603 |
| CHST14 | 5.67350201 | 5.352405 |
| CHST2 | 0.09673172 | 0.070643 |
| CHST3 | 0.0060305 | 0.003425 |
| CHST4 | 0 | 0.011889 |
| CHST5 | 0.02587733 | 0.007349 |
| CHST6 | 0.00610758 | 0.006938 |
| CHST7 | 0.1000773 | 0.093019 |
| CHST8 | 0.00725512 | 0.008242 |
| CHST9 | 0 | 0.002096 |
| CHSY1 | 86.2293562 | 116.7079 |
| CHSY3 | 0 | 0.00684 |
| CHTF18 | 6.2667734 | 6.315254 |
| CHTF8 | 12.8480294 | 12.55972 |

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| CHTF8P | 0 | 0 |
| CHUK | 9.83250438 | 8.885749 |
| CHURC1 | 9.24716567 | 9.183863 |
| CIAO1 | 15.5057277 | 16.47737 |
| CIAPIN1 | 5.91025448 | 5.375851 |
| CIAPIN1P | 0 | 0 |
| CIB1 | 213.244631 | 331.4823 |
| CIB2 | 0.0407731 | 0.030879 |
| CIB3 | 0.85882592 | 0.686561 |
| CIB4 | 0 | 0 |
| CIC | 19.5847135 | 16.47475 |
| CICP1 | 0 | 0 |
| CICP2 | 0 | 0 |
| CIDEA | 0.01525786 | 0 |
| CIDEB | 12.4257643 | 11.89994 |
| CIDEC | 0.29636332 | 0.243153 |
| CIDECP | 0 | 0 |
| CIITA | 6.02208126 | 6.718008 |
| CILP | 0.01882304 | 0.032075 |
| CILP2 | 0.01001445 | 0 |
| CINP | 6.46437653 | 5.147863 |
| CIR | 26.4429009 | 25.76341 |
| CIRBP | 221.255111 | 205.665 |
| CIRH1A | 1.39920126 | 1.366983 |
| CISD1 | 0.06079614 | 0.080576 |
| CISD1B | 0 | 0 |
| CISD2 | 17.9286654 | 19.3028 |
| CISD3 | 0.17547697 | 0.217467 |
| CISH | 5.16362846 | 10.89995 |
| CIT | 0.02206483 | 0.038992 |
| CITED1 | 0.09101875 | 0.059085 |
| CITED2 | 63.1631445 | 76.3581 |
| CITED4 | 1.0423092 | 1.424596 |
| CIZ1 | 10.0776586 | 9.598969 |
| CKAP2 | 7.29921152 | 8.253661 |
| CKAP2L | 0.70020198 | 1.269786 |
| CKAP4 | 12.521014 | 13.42947 |
| CKAP5 | 2.95070336 | 2.289376 |
| CKB | 25.4184644 | 30.61166 |
| CKBP1 | 0 | 0 |
| CKLF | 158.919387 | 142.3416 |
| CKM | 0 | 0 |
| CKMT1A | 0 | 0 |
| CKMT1B | 0 | 0.013426 |
| CKMT2 | 0.06386796 | 0.029022 |
| CKS1A | 0 | 0 |
| CKS1B | 0.10306535 | 0.146355 |

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| CKS1BP | 0 | 0 |
| CKS1BP2 | 0 | 0 |
| CKS1BP3 | 0 | 0 |
| CKS2 | 5.55644962 | 3.974358 |
| CLASP1 | 13.1808678 | 15.01475 |
| CLASP2 | 7.12330453 | 6.904675 |
| CLC | 607.698812 | 309.1795 |
| CLCA1 | 0.01346483 | 0.030593 |
| CLCA2 | 0 | 0 |
| CLCA3P | 0 | 0 |
| CLCA4 | 0 | 0 |
| CLCC1 | 6.09234512 | 6.604838 |
| CLCF1 | 37.7930895 | 52.32162 |
| CLCN1 | 0.00679771 | 0.007722 |
| CLCN2 | 0.13895001 | 0.099694 |
| CLCN3 | 6.12957686 | 4.716882 |
| CLCN4 | 0.04026061 | 0.045737 |
| CLCN5 | 0.17131902 | 0.125114 |
| CLCN6 | 2.02295367 | 1.710907 |
| CLCN7 | 19.1741066 | 19.80344 |
| CLCNKA | 0.00829075 | 0.009418 |
| CLCNKB | 0.01622325 | 0 |
| CLCP1 | 0 | 0 |
| CLDN1 | 0 | 0 |
| CLDN10 | 0 | 0 |
| CLDN11 | 0.34268015 | 0.354687 |
| CLDN12 | 0.06667012 | 0.061968 |
| CLDN14 | 0 | 0.035774 |
| CLDN15 | 7.85525084 | 7.214898 |
| CLDN16 | 0 | 0 |
| CLDN17 | 0 | 0 |
| CLDN18 | 0.02315565 | 0.006576 |
| CLDN19 | 0.00583713 | 0.013262 |
| CLDN2 | 0 | 0 |
| CLDN20 | 0 | 0 |
| CLDN22 | 0 | 0 |
| CLDN23 | 0.73243981 | 0.685229 |
| CLDN24 | 0 | 0 |
| CLDN3 | 0 | 0 |
| CLDN4 | 0.01153337 | 0.013102 |
| CLDN5 | 0 | 0 |
| CLDN6 | 0.03069391 | 0.034869 |
| CLDN7 | 0.01365281 | 0 |
| CLDN8 | 0 | 0 |
| CLDN9 | 3.81275681 | 3.885683 |
| CLDND1 | 18.1965886 | 15.93593 |
| CLDND2 | 0.34538531 | 0.245227 |

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| CLEC10A | 0.01181198 | 0 |
| CLEC11A | 0.04483013 | 0.033952 |
| CLEC12A | 46.0934748 | 29.09222 |
| CLEC12B | 2.09051862 | 1.665133 |
| CLEC14A | 0 | 0.021175 |
| CLEC16A | 2.93518624 | 2.894219 |
| CLEC17A | 5.5302098 | 3.972874 |
| CLEC18A | 0.49471367 | 0.647525 |
| CLEC18B | 0.46530583 | 0.528595 |
| CLEC18C | 0.65103817 | 0.448604 |
| CLEC1A | 0 | 0 |
| CLEC1B | 0.23794099 | 0.147439 |
| CLEC2A | 0 | 0 |
| CLEC2B | 15.1654742 | 10.52445 |
| CLEC2D | 2.3873304 | 2.502726 |
| CLEC2L | 0.03264803 | 0 |
| CLEC3A | 0.0108658 | 0 |
| CLEC3B | 0.86371665 | 1.317606 |
| CLEC4A | 2.83948654 | 2.218835 |
| CLEC4C | 0.03200203 | 0.018177 |
| CLEC4D | 0 | 0.049349 |
| CLEC4E | 0.00974297 | 0.022136 |
| CLEC4F | 0.00849508 | 0.009651 |
| CLEC4G | 0 | 0 |
| CLEC4GP1 | 0 | 0 |
| CLEC4M | 0 | 0 |
| CLEC5A | 0.00598842 | 0.040818 |
| CLEC6A | 0 | 0 |
| CLEC7A | 0.83116242 | 0.638219 |
| CLEC9A | 0 | 0.014277 |
| CLECL1 | 0.03311076 | 0.037614 |
| CLGN | 0.11175761 | 0.126958 |
| CLIC1 | 227.21139 | 242.1542 |
| CLIC2 | 0.14872721 | 0.133387 |
| CLIC3 | 0.4913669 | 2.02715 |
| CLIC4 | 2.44204904 | 3.40985 |
| CLIC5 | 0.00992229 | 0 |
| CLIC6 | 0.07746175 | 0.018857 |
| CLINT1 | 52.081433 | 44.46466 |
| CLIP1 | 5.05251576 | 5.134486 |
| CLIP2 | 0.66897062 | 1.236547 |
| CLIP3 | 0.0816152 | 0.085584 |
| CLIP4 | 0.10323403 | 0.067015 |
| CLK1 | 142.375029 | 141.3361 |
| CLK2 | 20.5924276 | 17.54779 |
| CLK2P | 0 | 0 |
| CLK3 | 32.9328067 | 29.65886 |

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| CLK4 | 27.1140387 | 25.69531 |
| CLLU1 | 0 | 0.006129 |
| CLLU1OS | 0 | 0 |
| CLMN | 0.40401616 | 0.391528 |
| CLN3 | 138.364124 | 162.97 |
| CLN5 | 9.8894146 | 10.56063 |
| CLN6 | 1.44420204 | 1.171883 |
| CLN8 | 3.71880592 | 4.627761 |
| CLNK | 0 | 0 |
| CLNS1A | 3.93554993 | 3.635825 |
| CLNS1B | 0 | 0 |
| CLOCK | 0.34794549 | 0.251162 |
| CLP1 | 9.28258111 | 9.471235 |
| CLPB | 0.52630803 | 0.398596 |
| CLPP | 5.62623974 | 4.75212 |
| CLPS | 0 | 0 |
| CLPSMCR | 0 | 0 |
| CLPTM1 | 28.7065171 | 27.43547 |
| CLPTM1L | 28.1903879 | 28.15507 |
| CLPX | 16.052943 | 15.38156 |
| CLRN1 | 0 | 0 |
| CLRN1OS | 0 | 0 |
| CLRN2 | 0 | 0 |
| CLRN3 | 0.09197433 | 0.062691 |
| CLSPN | 0.40331761 | 0.425448 |
| CLSTN1 | 12.3957123 | 12.27838 |
| CLSTN2 | 0 | 0.004892 |
| CLSTN3 | 8.74440004 | 8.856477 |
| CLTA | 27.5583274 | 28.76615 |
| CLTB | 44.0750603 | 56.32367 |
| CLTC | 22.540626 | 20.75428 |
| CLTCL1 | 0.10674692 | 0.103942 |
| CLU | 0.13486421 | 0.176189 |
| CLUAP1 | 0.4173763 | 0.49108 |
| CLUL1 | 0 | 0.011937 |
| CLYBL | 0.01889068 | 0.04292 |
| CMA1 | 0 | 0 |
| CMAH | 0 | 0 |
| CMAS | 11.8350513 | 9.973851 |
| CMBL | 0.01039058 | 0.011804 |
| CMC1 | 1.04119051 | 1.144654 |
| CMIP | 89.2887861 | 97.29615 |
| CMKLR1 | 0.04494193 | 0.034036 |
| CMPK1 | 19.1883055 | 19.44232 |
| CMPK2 | 11.9159955 | 14.89523 |
| CMTM1 | 15.2706339 | 16.47175 |
| CMTM2 | 3.61960072 | 3.774881 |

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| CMTM3 | 21.8270231 | 22.98522 |
| CMTM4 | 0.40149394 | 0.523783 |
| CMTM5 | 0.03504222 | 0 |
| CMTM6 | 114.789812 | 121.008 |
| CMTM7 | 17.0568192 | 18.33372 |
| CMTM8 | 6.86468071 | 8.043362 |
| CMYA5 | 0.02120147 | 0.025938 |
| CN5H6.4 | 0 | 0 |
| CNBD1 | 0 | 0 |
| CNBP | 69.9974523 | 62.26786 |
| CNDP1 | 0.03826266 | 0.010867 |
| CNDP2 | 12.6167896 | 11.2241 |
| CNFN | 0.07964141 | 0.135711 |
| CNGA1 | 0.00695973 | 0.007906 |
| CNGA2 | 0 | 0 |
| CNGA3 | 0 | 0 |
| CNGA4 | 0.03314556 | 0.025103 |
| CNGB1 | 0.00663364 | 0.011304 |
| CNGB3 | 0.00967349 | 0.005495 |
| CNIH | 1.58096304 | 1.980635 |
| CNIH2 | 0.93270265 | 1.077524 |
| CNIH3 | 0 | 0.01007 |
| CNIH4 | 24.3880253 | 17.94277 |
| CNKSR1 | 0.13265193 | 0.113021 |
| CNKSR2 | 1.416214 | 1.048295 |
| CNKSR3 | 0.23448324 | 0.044396 |
| CNN1 | 0 | 0.01506 |
| CNN2 | 279.12025 | 324.1398 |
| CNN3 | 0.01017683 | 0.011561 |
| CNNM1 | 0.00705666 | 0 |
| CNNM2 | 1.03912721 | 0.976366 |
| CNNM3 | 12.8136476 | 12.75395 |
| CNNM4 | 3.71009486 | 3.572814 |
| CNO | 9.99587209 | 9.934104 |
| CNOT1 | 34.3414544 | 32.14111 |
| CNOT10 | 11.8588696 | 13.77685 |
| CNOT2 | 20.4291859 | 21.58398 |
| CNOT3 | 19.2063268 | 18.39697 |
| CNOT4 | 6.31561275 | 5.85464 |
| CNOT6 | 12.415703 | 12.3293 |
| CNOT6L | 16.9943203 | 18.93372 |
| CNOT6LP1 | 0 | 0 |
| CNOT7 | 13.9972007 | 13.61317 |
| CNOT8 | 42.6942081 | 36.29421 |
| CNP | 5.16171472 | 4.669992 |
| CNPY1 | 0 | 0 |
| CNPY2 | 5.30415711 | 4.820485 |

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| CNPY3 | 79.9200824 | 85.33683 |
| CNPY4 | 2.33138024 | 1.527347 |
| CNR1 | 0.97559994 | 0.973032 |
| CNR2 | 148.729045 | 110.7327 |
| CNRIP1 | 0.08184601 | 0.020662 |
| CNTD1 | 0.08340839 | 0.087465 |
| CNTD2 | 0 | 0.012486 |
| CNTF | 0.35523262 | 0.390939 |
| CNTFR | 0.01031665 | 0 |
| CNTLN | 0.0182571 | 0.023333 |
| CNTN1 | 0.0245408 | 0 |
| CNTN2 | 0.01651853 | 0.003128 |
| CNTN3 | 0 | 0 |
| CNTN4 | 0.02302044 | 0.017434 |
| CNTN5 | 0.00504931 | 0.011472 |
| CNTN6 | 0 | 0 |
| CNTNAP1 | 0.28912721 | 0.345971 |
| CNTNAP2 | 0.00425184 | 0.002415 |
| CNTNAP3 | 3.87615587 | 2.813775 |
| CNTNAP4 | 0.00426045 | 0 |
| CNTNAP5 | 0.01591622 | 0.00452 |
| CNTROB | 4.79143 | 4.263159 |
| COASY | 19.9464754 | 19.09499 |
| COBL | 0.01187872 | 0.008996 |
| COBLL1 | 0.02989586 | 0.019407 |
| COBRA1 | 19.3701802 | 19.40781 |
| COCH | 0.01459079 | 0 |
| COG1 | 13.5712103 | 11.12015 |
| COG2 | 6.4851781 | 5.422565 |
| COG3 | 9.4431038 | 9.1874 |
| COG4 | 7.51756164 | 6.254818 |
| COG5 | 7.36820006 | 7.376284 |
| COG6 | 1.98740881 | 1.93077 |
| COG7 | 3.44913153 | 3.395832 |
| COG8 | 6.18540799 | 5.973671 |
| COIL | 3.44036357 | 3.790424 |
| COILP1 | 0 | 0 |
| COILP2 | 0 | 0 |
| COL10A1 | 0 | 0 |
| COL11A1 | 0.00282447 | 0 |
| COL11A2 | 0.21270763 | 0.260227 |
| COL11A2P | 0 | 0 |
| COL12A1 | 0.01089489 | 0.004126 |
| COL13A1 | 0.01330296 | 0.007556 |
| COL14A1 | 0.0032552 | 0.007396 |
| COL15A1 | 0.6140529 | 0.534505 |
| COL16A1 | 0.00376528 | 0.012832 |

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| COL17A1 | 0.01499132 | 0.01703 |
| COL18A1 | 13.5789893 | 15.72301 |
| COL19A1 | 0.00722934 | 0.016425 |
| COL1A1 | 0.19155861 | 0.225673 |
| COL1A2 | 0 | 0 |
| COL20A1 | 0.02519814 | 0.01145 |
| COL21A1 | 0.01007684 | 0.005724 |
| COL22A1 | 0.00662633 | 0 |
| COL23A1 | 0.03432147 | 0.054586 |
| COL24A1 | 0.00646933 | 0.014699 |
| COL25A1 | 0.00723764 | 0 |
| COL27A1 | 0.00753191 | 0 |
| COL28A1 | 0.02990801 | 0.01359 |
| COL29A1 | 0.00236825 | 0.00269 |
| COL2A1 | 0.0165326 | 0.018781 |
| COL3A1 | 0.00382975 | 0 |
| COL4A1 | 1.3647796 | 1.206688 |
| COL4A2 | 0.0100696 | 0.003813 |
| COL4A3 | 0.01817902 | 0.023602 |
| COL4A3BP | 13.7050128 | 12.39322 |
| COL4A4 | 0.03456442 | 0.025407 |
| COL4A5 | 0.00652454 | 0 |
| COL4A6 | 0.00617031 | 0.003505 |
| COL5A1 | 0.00996579 | 0.005661 |
| COL5A2 | 0.00910187 | 0 |
| COL5A3 | 0.00340546 | 0.007737 |
| COL6A1 | 0.39313637 | 0.407036 |
| COL6A2 | 0.06295009 | 0.016503 |
| COL6A3 | 0.00198708 | 0.002257 |
| COL6A6 | 0.00744699 | 0.00282 |
| COL7A1 | 0.12611988 | 0.182349 |
| COL8A1 | 0.00791021 | 0.017972 |
| COL8A2 | 0.00946447 | 0.016128 |
| COL9A1 | 0.00524322 | 0.011913 |
| COL9A2 | 34.7055357 | 36.26217 |
| COL9A3 | 6.51489128 | 7.977723 |
| COLEC10 | 0.01247054 | 0 |
| COLEC11 | 0 | 0.017271 |
| COLEC12 | 0 | 0 |
| COLQ | 0.14366685 | 0.149016 |
| COMMD1 | 1.71033548 | 1.976468 |
| COMMD10 | 3.01205584 | 2.851453 |
| COMMD2 | 6.17176148 | 5.233254 |
| COMMD3 | 17.6915047 | 17.42149 |
| COMMD4 | 8.9329244 | 8.237135 |
| COMMD5 | 9.14312557 | 8.063964 |
| COMMD6 | 5.77525061 | 5.42339 |

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| COMMD7 | 9.94604876 | 10.09899 |
| COMMD8 | 10.1316094 | 7.910775 |
| COMMD9 | 4.27717728 | 4.152186 |
| COMP | 0 | 0.009741 |
| COMT | 3.25303789 | 3.65808 |
| COMTD1 | 1.35855985 | 1.567843 |
| COPA | 46.1807702 | 45.35894 |
| COPB1 | 28.7511118 | 27.83323 |
| COPB2 | 28.5117761 | 26.86788 |
| COPE | 73.4959541 | 77.17376 |
| COPG | 25.8199819 | 23.79187 |
| COPG2 | 1.58170142 | 1.411801 |
| COPS2 | 5.65554789 | 4.947962 |
| COPS3 | 16.0131799 | 11.63596 |
| COPS4 | 9.93531085 | 9.74261 |
| COPS5 | 24.9622889 | 23.88511 |
| COPS5P | 0 | 0 |
| COPS6 | 13.092913 | 12.0263 |
| COPS7A | 13.5171209 | 12.04235 |
| COPS7B | 10.9859215 | 10.26927 |
| COPS8 | 6.96922292 | 7.053459 |
| COPZ1 | 16.8357816 | 16.28015 |
| COPZ2 | 0.02328387 | 0.026451 |
| COQ10A | 1.5608833 | 1.20418 |
| COQ10B | 13.9529805 | 12.93474 |
| COQ2 | 9.39167904 | 9.877067 |
| COQ3 | 0.19944978 | 0.283223 |
| COQ4 | 2.05973344 | 2.41586 |
| COQ5 | 1.49086177 | 1.297932 |
| COQ6 | 4.86517707 | 3.957066 |
| COQ7 | 2.94907076 | 2.482649 |
| COQ9 | 7.74138114 | 6.045179 |
| CORIN | 0.01276325 | 0.014499 |
| CORO1A | 1660.45604 | 1575.193 |
| CORO1B | 12.6906741 | 15.10274 |
| CORO1C | 23.3841361 | 26.06388 |
| CORO2A | 9.96686118 | 11.85338 |
| CORO2B | 0 | 0 |
| CORO6 | 3.70732366 | 3.275672 |
| CORO7 | 122.562003 | 131.7895 |
| CORT | 0 | 0.025546 |
| COTL1 | 1364.7822 | 1467.254 |
| COTL1P2 | 0 | 0 |
| COX1 | 0 | 0 |
| COX10 | 0.65135103 | 0.644468 |
| COX11 | 2.15464916 | 1.758467 |
| COX11P | 0 | 0 |

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| COX15 | 4.50913913 | 3.889213 |
| COX16 | 1.75517941 | 1.3804 |
| COX17 | 28.0834799 | 27.2166 |
| COX17P | 0 | 0 |
| COX18 | 3.16100488 | 2.714337 |
| COX19 | 7.67332156 | 9.732779 |
| COX2 | 0 | 0 |
| COX3 | 0 | 0 |
| COX4I1 | 89.8164387 | 87.94604 |
| COX4I2 | 0 | 0 |
| COX4NB | 6.21981532 | 6.99284 |
| COX5A | 18.0763235 | 18.95299 |
| COX5AP1 | 0 | 0 |
| COX5AP2 | 0 | 0 |
| COX5B | 70.7367075 | 68.01344 |
| COX5BL1 | 0 | 0 |
| COX5BL7 | 0 | 0 |
| COX6A1 | 68.8311017 | 66.73011 |
| COX6A1P | 0 | 0 |
| COX6A1P2 | 0 | 0 |
| COX6A2 | 0 | 0 |
| COX6B1 | 57.8761799 | 53.7629 |
| COX6B2 | 0.02528603 | 0.043088 |
| COX6BP1 | 0 | 0 |
| COX6BP2 | 0 | 0 |
| COX6BP3 | 0 | 0 |
| COX6C | 27.1103091 | 22.92971 |
| COX6CP1 | 0 | 0 |
| COX6CP2 | 0 | 0 |
| COX7A1 | 0 | 0.031345 |
| COX7A2 | 60.8839903 | 56.56197 |
| COX7A2L | 13.9666925 | 11.8891 |
| COX7AP1 | 0 | 0 |
| COX7AP2 | 0 | 0 |
| COX7B | 40.0219019 | 36.87526 |
| COX7B2 | 0 | 0.050819 |
| COX7BP1 | 0 | 0 |
| COX7BP2 | 0 | 0 |
| COX7C | 101.768801 | 93.31038 |
| COX7CP1 | 0 | 0 |
| COX8A | 89.7827249 | 91.25337 |
| COX8B | 0 | 0 |
| COX8C | 0 | 0 |
| CP | 0.01351822 | 0.010238 |
| CP110 | 7.85536625 | 7.730216 |
| CPA1 | 0 | 0 |
| CPA2 | 0 | 0.017959 |

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| CPA3 | 0.09976432 | 0.155834 |
| CPA4 | 0 | 0.008479 |
| CPA5 | 0.03038343 | 0.011505 |
| CPA6 | 0 | 0 |
| CPAMD8 | 0.02106747 | 0.015955 |
| CPB1 | 0 | 0 |
| CPB2 | 0.03571687 | 0.02705 |
| CPD | 28.5944501 | 25.19767 |
| CPE | 0 | 0.009837 |
| CPEB1 | 0 | 0 |
| CPEB2 | 10.1894575 | 12.87427 |
| CPEB3 | 1.89371988 | 2.674805 |
| CPEB4 | 16.6654638 | 17.14907 |
| CPLX1 | 0 | 0 |
| CPLX2 | 5.63772048 | 7.101633 |
| CPLX3 | 0.15674949 | 0.142456 |
| CPLX4 | 0.01069447 | 0 |
| CPM | 0.07501233 | 0.099418 |
| CPN1 | 0.01197342 | 0 |
| CPN2 | 0 | 0 |
| CPNE1 | 58.4370964 | 53.69535 |
| CPNE2 | 2.2654529 | 2.551688 |
| CPNE3 | 6.46667252 | 5.072639 |
| CPNE4 | 0.00816201 | 0.009272 |
| CPNE5 | 0.14482858 | 0.300442 |
| CPNE6 | 0 | 0 |
| CPNE7 | 0.00791318 | 0.026969 |
| CPNE8 | 0.08504901 | 0.089716 |
| CPNE9 | 0.10261265 | 0.081599 |
| CPO | 0 | 0 |
| CPOX | 5.03203654 | 4.697257 |
| CPP | 0 | 0 |
| CPPED1 | 7.44083827 | 6.011131 |
| CPS1 | 0.00683973 | 0.00777 |
| CPSF1 | 15.3923762 | 15.40786 |
| CPSF1P1 | 0 | 0 |
| CPSF2 | 7.63268313 | 7.282566 |
| CPSF3 | 6.11100131 | 5.225899 |
| CPSF3L | 18.5141088 | 16.83704 |
| CPSF4 | 9.62605514 | 9.653456 |
| CPSF4L | 0.38995977 | 0.2215 |
| CPSF6 | 11.4533393 | 13.1628 |
| CPSF7 | 44.7688292 | 41.82906 |
| CPT1A | 47.5206979 | 53.77089 |
| CPT1B | 6.8361911 | 6.457494 |
| CPT1C | 0 | 0.025428 |
| CPT2 | 6.32662674 | 5.905659 |

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| CPVL | 0.07091174 | 0.093983 |
| CPXCR1 | 0 | 0 |
| CPXM1 | 0 | 0.009994 |
| CPXM2 | 0.0112918 | 0.019241 |
| CPZ | 0 | 0 |
| CR1 | 26.5675289 | 24.61609 |
| CR1L | 0.801183 | 0.611105 |
| CR2 | 0.04057965 | 0.040337 |
| CRABP1 | 0 | 0 |
| CRABP2 | 1.19338824 | 1.109216 |
| CRADD | 4.17323642 | 3.153879 |
| CRAMP1L | 8.29449717 | 8.056127 |
| CRAT | 1.79263264 | 2.01997 |
| CRB1 | 0 | 0 |
| CRB2 | 0.0111817 | 0.038108 |
| CRB3 | 0.01897593 | 0.043114 |
| CRBN | 24.138073 | 20.60931 |
| CRCP | 20.7477936 | 21.76331 |
| CRCT1 | 0 | 0.034367 |
| CREB1 | 9.03235662 | 8.739229 |
| CREB3 | 5.72488752 | 5.806753 |
| CREB3L1 | 0 | 0 |
| CREB3L2 | 16.416962 | 19.9411 |
| CREB3L3 | 1.31001482 | 1.229381 |
| CREB3L4 | 0.61379043 | 0.492195 |
| CREB5 | 0.01191777 | 0.002708 |
| CREBBP | 38.3783942 | 38.85751 |
| CREBL2 | 7.83681626 | 6.710518 |
| CREBZF | 17.3551096 | 19.39848 |
| CREG1 | 52.7708825 | 35.07315 |
| CREG2 | 0.0060279 | 0.013696 |
| CRELD1 | 1.71043713 | 1.193844 |
| CRELD2 | 3.12376346 | 2.987534 |
| CREM | 3.79088595 | 3.144255 |
| CRH | 0 | 0.03735 |
| CRHBP | 0.21734564 | 0.142947 |
| CRHR1 | 0 | 0.008966 |
| CRHR2 | 0.01241898 | 0.028216 |
| CRIM1 | 23.4162846 | 16.26275 |
| CRIP1 | 157.865193 | 180.0838 |
| CRIP2 | 0.4881503 | 0.950651 |
| CRIP3 | 0.10996512 | 0.049969 |
| CRIPAK | 3.21318922 | 3.295425 |
| CRIPT | 3.70519388 | 3.287627 |
| CRISP1 | 0 | 0 |
| CRISP2 | 0 | 0.016964 |
| CRISP3 | 0.0099788 | 0.022672 |

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| CRISPLD1 | 0 | 0.005695 |
| CRISPLD2 | 0.0229084 | 0.015615 |
| CRK | 12.0580055 | 11.88816 |
| CRKL | 11.695217 | 10.45114 |
| CRKRS | 10.8829548 | 10.53941 |
| CRLF1 | 0.04693154 | 0 |
| CRLF2 (NC_0000) | 0.34424345 | 0.120328 |
| CRLF2 (NC_0000) | 0.34424345 | 0.180492 |
| CRLF3 | 59.2369576 | 63.78567 |
| CRLS1 | 0.91481143 | 1.03924 |
| CRMP1 | 0.02997623 | 0.10216 |
| CRNKL1 | 12.9511458 | 11.93171 |
| CRNN | 0 | 0 |
| CROCC | 3.26309599 | 3.129179 |
| CROCCL1 | 0 | 0 |
| CROCCL2 | 0 | 0 |
| CROCCP | 0 | 0 |
| CROP | 53.1396132 | 50.09257 |
| CROT | 1.20958982 | 0.920872 |
| CRP | 0 | 0.011854 |
| CRPP1 | 0 | 0 |
| CRTAC1 | 0 | 0.008268 |
| CRTAM | 0.01736196 | 0.049309 |
| CRTAP | 2.49104808 | 2.398925 |
| CRTC1 | 1.45541479 | 1.448411 |
| CRTC2 | 62.1409917 | 59.44492 |
| CRTC3 | 7.73761455 | 6.596004 |
| CRX | 0.00470681 | 0.016041 |
| CRY1 | 3.46550114 | 3.064449 |
| CRY2 | 9.24671721 | 9.088153 |
| CRYAA | 0 | 0.021441 |
| CRYAB | 0 | 0 |
| CRYBA1 | 0.10512665 | 0.179138 |
| CRYBA2 | 0 | 0.026989 |
| CRYBA4 | 0 | 0 |
| CRYBB1 | 0.02282881 | 0 |
| CRYBB2 | 1.24002607 | 0.59478 |
| CRYBB2P1 | 0 | 0 |
| CRYBB3 | 0 | 0.028001 |
| CRYBG3 | 0.03954608 | 0.009983 |
| CRYGA | 0 | 0 |
| CRYGB | 0 | 0 |
| CRYGC | 0 | 0 |
| CRYGD | 0 | 0 |
| CRYGEP1 | 0 | 0 |
| CRYGFP | 0 | 0 |
| CRYGGP1 | 0 | 0 |

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|----------------|------------|----------|
| CRYGN | 0 | 0 |
| CRYGS | 1.84783194 | 1.418356 |
| CRYL1 | 0.30816608 | 0.334169 |
| CRYM | 0 | 0 |
| CRYZ | 0.13682428 | 0.113985 |
| CRYZL1 | 5.30855814 | 3.741209 |
| CRYZP1 | 0 | 0 |
| CS | 174.780129 | 139.7632 |
| CSAD | 11.9130539 | 11.20252 |
| CSAG1 | 0 | 0 |
| CSAG2 | 0 | 0 |
| CSAG3 | 0 | 0 |
| CSDA | 1.81069213 | 1.60928 |
| CSDAP1 | 0 | 0 |
| CSDC2 | 0.01662081 | 0 |
| CSDE1 | 119.224847 | 110.5531 |
| CSE1L | 4.75889266 | 3.689079 |
| CSF1 | 60.8779424 | 80.34261 |
| CSF1R | 0.45856199 | 0.461056 |
| CSF2 | 0 | 0 |
| CSF2RA (NC_000 | 1.18581042 | 1.52844 |
| CSF2RA (NC_000 | 20.4763667 | 18.09572 |
| CSF2RB | 164.459896 | 125.1357 |
| CSF2RB2 | 0 | 0 |
| CSF3 | 0 | 0 |
| CSF3R | 1.99072524 | 2.671972 |
| CSGALNACT1 | 2.08171594 | 1.9024 |
| CSGALNACT2 | 35.6030443 | 34.35248 |
| CSGLCA-T | 37.0300035 | 38.8479 |
| CSH1 | 0 | 0 |
| CSH2 | 0 | 0 |
| CSHL1 | 0 | 0 |
| CSK | 131.293216 | 143.0927 |
| CSMD1 | 0.00734125 | 0 |
| CSMD2 | 0.00641603 | 0.005467 |
| CSMD3 | 0.00157434 | 0 |
| CSN1S1 | 0 | 0 |
| CSN1S2A | 0 | 0 |
| CSN1S2B | 0 | 0 |
| CSN2 | 0 | 0 |
| CSN3 | 0 | 0 |
| CSNK1A1 | 30.2259998 | 28.71674 |
| CSNK1A1L | 0 | 0.009931 |
| CSNK1A1P | 0 | 0 |
| CSNK1D | 89.1547986 | 92.63502 |
| CSNK1E | 10.05085 | 9.988619 |
| CSNK1G1 | 6.28725136 | 6.214869 |

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| CSNK1G2 | 134.743059 | 170.3119 |
| CSNK1G3 | 1.09791621 | 0.915364 |
| CSNK2A1 | 20.098615 | 18.79815 |
| CSNK2A1P | 0 | 0 |
| CSNK2A2 | 7.05913764 | 6.565166 |
| CSNK2B | 85.0705767 | 82.0733 |
| CSPG4 | 0.0177536 | 0.011525 |
| CSPG4P1Y | 0 | 0 |
| CSPG4P2Y | 0 | 0 |
| CSPG4P3Y | 0 | 0 |
| CSPG4P4Y | 0 | 0 |
| CSPG4P6Y | 0 | 0 |
| CSPG4P7Y | 0 | 0.026807 |
| CSPG5 | 0.03897188 | 0.055341 |
| CSPP1 | 0.98262392 | 0.795814 |
| CSRNP1 | 16.3493712 | 19.3823 |
| CSRNP2 | 8.98598839 | 8.834658 |
| CSRNP3 | 0 | 0 |
| CSRP1 | 6.86463733 | 7.070396 |
| CSRP2 | 0.07000665 | 0.02651 |
| CSRP2BP | 0.83724563 | 0.517174 |
| CSRP2P | 0 | 0 |
| CSRP3 | 0.04703653 | 0 |
| CST1 | 0 | 0 |
| CST11 | 0 | 0 |
| CST2 | 0.03029587 | 0 |
| CST3 | 0.92240162 | 0.708848 |
| CST4 | 0 | 0 |
| CST5 | 0 | 0 |
| CST6 | 0 | 0 |
| CST7 | 18.0120023 | 12.63749 |
| CST8 | 0 | 0 |
| CST9 | 0 | 0 |
| CST9L | 0 | 0 |
| CSTA | 1.21885977 | 1.615418 |
| CSTB | 29.3012591 | 34.23048 |
| CSTF1 | 5.53427257 | 4.634008 |
| CSTF2 | 4.50319434 | 3.836775 |
| CSTF2T | 0.03580957 | 0.023246 |
| CSTF3 | 3.2189048 | 2.808246 |
| CSTL1 | 0 | 0 |
| CSTP1 | 0 | 0 |
| CSTP2 | 0 | 0 |
| CSTT | 0 | 0 |
| CT45A1 | 0.02085846 | 0 |
| CT45A2 | 0 | 0 |
| CT45A3 | 0 | 0 |

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| CT45A4 | 0 | 0 |
| CT45A5 | 0 | 0 |
| CT45A6 | 0 | 0 |
| CT47A1 | 0 | 0 |
| CT47A10 | 0 | 0 |
| CT47A11 | 0 | 0 |
| CT47A2 | 0 | 0 |
| CT47A3 | 0 | 0 |
| CT47A4 | 0 | 0 |
| CT47A5 | 0 | 0 |
| CT47A6 | 0 | 0 |
| CT47A7 | 0 | 0 |
| CT47A8 | 0 | 0 |
| CT47A9 | 0 | 0 |
| CT47B1 | 0 | 0 |
| CTAG1A | 0.02810873 | 0.031932 |
| CTAG1B | 0.02810873 | 0.063864 |
| CTAG2 | 0 | 0.024447 |
| CTAGE1 | 0.00487261 | 0.027677 |
| CTAGE3 | 0 | 0 |
| CTAGE4 | 0.0160132 | 0.018191 |
| CTAGE5 | 16.5199029 | 19.30811 |
| CTAGE6 | 0.00789832 | 0.017945 |
| CTAGEP | 0 | 0 |
| CTBP1 | 41.5087283 | 43.43184 |
| CTBP2 | 12.1800589 | 14.16483 |
| CTBP2P1 | 0 | 0 |
| CTBS | 14.6248432 | 13.77187 |
| CTCF | 21.8803352 | 23.45622 |
| CTCFL | 0 | 0.020734 |
| CTDP1 | 13.0188849 | 13.02535 |
| CTDSP1 | 113.049012 | 149.875 |
| CTDSP2 | 97.4117824 | 91.95291 |
| CTDSPL | 0.04247542 | 0.042891 |
| CTDSPL2 | 6.41757794 | 6.188081 |
| CTF1 | 0.64440618 | 0.516745 |
| CTF2P | 0 | 0 |
| CTGF | 0 | 0 |
| CTGLF10P | 0 | 0 |
| CTGLF11P | 0 | 0 |
| CTGLF12P | 0 | 0 |
| CTGLF8P | 0 | 0 |
| CTGLF9P | 0 | 0 |
| CTH | 0.39604502 | 0.396982 |
| CTHRC1 | 0.01723388 | 0.039156 |
| CTLA4 | 0 | 0.012081 |
| CTNNA1 | 5.03691125 | 4.858311 |

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|-----------|------------|----------|
| CTNNA2 | 0 | 0 |
| CTNNA3 | 0.00624638 | 0.021288 |
| CTNNAL1 | 0.90292832 | 1.279734 |
| CTNNAP1 | 0 | 0 |
| CTNNB1 | 72.887814 | 81.57535 |
| CTNNBIP1 | 2.49215108 | 2.799223 |
| CTNNBL1 | 22.2057786 | 18.59699 |
| CTNND1 | 6.73803913 | 7.436356 |
| CTNND2 | 0.01160338 | 0.017576 |
| CTNS | 25.305369 | 23.25443 |
| CTPS | 0.12487693 | 0.111996 |
| CTPS2 | 0.41141224 | 0.388656 |
| CTR9 | 18.5270786 | 16.79552 |
| CTRB1 | 0 | 0 |
| CTRB2 | 0 | 0 |
| CTRC | 1.00566099 | 1.248721 |
| CTRL | 9.15474205 | 10.05259 |
| CTSA | 103.949898 | 107.6971 |
| CTSB | 24.4241627 | 31.75103 |
| CTSC | 11.3414877 | 9.124156 |
| CTSD | 302.893695 | 399.6813 |
| CTSE | 0.00943686 | 0 |
| CTSF | 0.21923136 | 0.320208 |
| CTSG | 0 | 0.02585 |
| CTSH | 0.42475416 | 0.466443 |
| CTSK | 2.61890139 | 2.876879 |
| CTSL1 | 0.07360093 | 0.2369 |
| CTSL2 | 0.02810873 | 0.015966 |
| CTSL3 | 0 | 0 |
| CTSLL1 | 0 | 0 |
| CTSLL2 | 0 | 0 |
| CTSLL3 | 0 | 0 |
| CTSLL5 | 0 | 0 |
| CTSO | 0.41577538 | 0.317599 |
| CTSS | 37.5225236 | 27.38632 |
| CTSW | 1.63854817 | 1.935136 |
| CTSZ | 77.2330491 | 72.97697 |
| CTTN | 0.51906486 | 0.924538 |
| CTTNBP2 | 0 | 0.004001 |
| CTTNBP2NL | 0.00712723 | 0.008097 |
| CTXN1 | 0.03329427 | 0.018911 |
| CTXN2 | 0.00780161 | 0 |
| CTXN3 | 0 | 0 |
| CUBN | 0.01761948 | 0.016013 |
| CUEDC1 | 3.84457716 | 4.607114 |
| CUEDC2 | 5.36181099 | 4.33367 |
| CUGBP1 | 21.5267869 | 17.31365 |

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| CUGBP2 | 58.9945925 | 67.76025 |
| CUL1 | 17.4151853 | 19.08427 |
| CUL2 | 7.69982698 | 6.531408 |
| CUL3 | 13.2214124 | 12.54813 |
| CUL4A | 11.573676 | 9.464259 |
| CUL4B | 11.2556492 | 8.83094 |
| CUL5 | 3.57170567 | 3.246011 |
| CUL7 | 2.82848539 | 2.824651 |
| CUL9 | 5.68179063 | 5.990487 |
| CUTA | 10.8721478 | 7.729293 |
| CUTC | 21.3327188 | 18.38525 |
| CUX1 | 4.40065067 | 4.669196 |
| CUX2 | 0.01536715 | 0.017457 |
| CUZD1 | 0.16628118 | 0.136426 |
| CWC15 | 13.8700437 | 12.90554 |
| CWC22 | 12.7601124 | 10.99196 |
| CWF19L1 | 13.4871948 | 12.94495 |
| CWF19L2 | 5.7499152 | 5.039176 |
| CX3CL1 | 0.01284774 | 0 |
| CX3CR1 | 0.01352981 | 0.03074 |
| CXADR | 0 | 0 |
| CXADRP1 | 0 | 0 |
| CXADRP2 | 0 | 0 |
| CXADRP3 | 0 | 0 |
| CXCL1 | 0.01906195 | 0 |
| CXCL10 | 0.0178939 | 0 |
| CXCL11 | 0 | 0 |
| CXCL12 | 0 | 0.004564 |
| CXCL13 | 0.03495483 | 0 |
| CXCL14 | 0.01064574 | 0.012094 |
| CXCL16 | 76.4908204 | 72.4422 |
| CXCL17 | 0.04929738 | 0 |
| CXCL1P | 0 | 0 |
| CXCL2 | 0.01744841 | 0.019822 |
| CXCL3 | 0 | 0.020608 |
| CXCL5 | 0.05987686 | 0.048586 |
| CXCL6 | 0 | 0 |
| CXCL9 | 0 | 0 |
| CXCR3 | 0.10129977 | 0.076719 |
| CXCR4 | 1170.00461 | 1107.316 |
| CXCR5 | 4.49354039 | 6.050054 |
| CXCR6 | 0 | 0 |
| CXCR7 | 0 | 0 |
| CXorf1 | 0 | 0 |
| CXorf15 | 3.40312203 | 2.849861 |
| CXorf18 | 0 | 0 |
| CXorf19 | 0 | 0 |

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|----------|------------|----------|
| CXorf21 | 15.0014806 | 9.392872 |
| CXorf22 | 0 | 0 |
| CXorf23 | 3.93676441 | 3.646147 |
| CXorf24 | 0 | 0 |
| CXorf25 | 0 | 0 |
| CXorf26 | 6.12285789 | 5.256723 |
| CXorf27 | 0 | 0 |
| CXorf30 | 0 | 0 |
| CXorf36 | 0.11156558 | 0.105013 |
| CXorf38 | 18.7205408 | 16.11933 |
| CXorf39 | 10.0327471 | 11.5247 |
| CXorf40A | 3.44778487 | 4.091593 |
| CXorf40B | 12.8034851 | 11.12262 |
| CXorf41 | 0 | 0 |
| CXorf42 | 0 | 0 |
| CXorf48 | 0.00972945 | 0 |
| CXorf49 | 0 | 0 |
| CXorf49B | 0 | 0 |
| CXorf50 | 0 | 0 |
| CXorf50B | 0 | 0 |
| CXorf51 | 0 | 0 |
| CXorf52 | 0 | 0 |
| CXorf52B | 0 | 0 |
| CXorf56 | 9.04740458 | 6.156228 |
| CXorf57 | 0.05924146 | 0.042827 |
| CXorf58 | 0 | 0 |
| CXorf59 | 0 | 0 |
| CXorf61 | 0 | 0 |
| CXorf64 | 0 | 0.01945 |
| CXorf65 | 2.71174763 | 1.223795 |
| CXorf66 | 0 | 0 |
| CXorf67 | 0.01092793 | 0 |
| CXXC1 | 20.9473543 | 20.35791 |
| CXXC4 | 0 | 0 |
| CXXC5 | 0.17436349 | 0.363146 |
| CXXC6P1 | 0 | 0 |
| CYB561 | 0.06820367 | 0.126786 |
| CYB561D1 | 9.39759315 | 8.008019 |
| CYB561D2 | 18.580525 | 16.06889 |
| CYB5A | 0.27797914 | 0.229665 |
| CYB5B | 6.87272251 | 5.639695 |
| CYB5D1 | 0.03367645 | 0.012752 |
| CYB5D2 | 1.35749134 | 1.171542 |
| CYB5P3 | 0 | 0 |
| CYB5P4 | 0 | 0 |
| CYB5R1 | 6.32167589 | 5.451562 |
| CYB5R2 | 0.49911765 | 0.478411 |

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| CYB5R3 | 57.1261162 | 65.65295 |
| CYB5R4 | 55.347055 | 48.38675 |
| CYB5RL | 0.17762882 | 0.147979 |
| CYBA | 499.35161 | 531.0965 |
| CYBASC3 | 6.76448634 | 6.013655 |
| CYBB | 72.9313124 | 50.07686 |
| CYBRD1 | 0.69971838 | 0.471453 |
| CYC1 | 18.2972508 | 21.06232 |
| CYCS | 2.97362615 | 2.48478 |
| CYCSL1 | 0 | 0 |
| CYCSP1 | 0 | 0 |
| CYCSP10 | 0 | 0 |
| CYCSP11 | 0 | 0 |
| CYCSP12 | 0 | 0 |
| CYCSP14 | 0 | 0 |
| CYCSP16 | 0 | 0 |
| CYCSP17 | 0 | 0 |
| CYCSP18 | 0 | 0 |
| CYCSP19 | 0 | 0 |
| CYCSP2 | 0 | 0 |
| CYCSP20 | 0 | 0 |
| CYCSP22 | 0 | 0 |
| CYCSP23 | 0 | 0 |
| CYCSP24 | 0 | 0 |
| CYCSP25 | 0 | 0 |
| CYCSP26 | 0 | 0 |
| CYCSP27 | 0 | 0 |
| CYCSP28 | 0 | 0 |
| CYCSP29 | 0 | 0 |
| CYCSP3 | 0 | 0 |
| CYCSP30 | 0 | 0 |
| CYCSP32 | 0 | 0 |
| CYCSP33 | 0 | 0 |
| CYCSP34 | 0 | 0 |
| CYCSP35 | 0 | 0 |
| CYCSP38 | 0 | 0 |
| CYCSP39 | 0 | 0 |
| CYCSP4 | 0 | 0 |
| CYCSP40 | 0 | 0 |
| CYCSP41 | 0 | 0 |
| CYCSP42 | 0 | 0 |
| CYCSP43 | 0 | 0 |
| CYCSP44 | 0 | 0 |
| CYCSP45 | 0 | 0 |
| CYCSP46 | 0 | 0 |
| CYCSP48 | 0 | 0 |
| CYCSP5 | 0 | 0 |

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| CYCSP51 | 0 | 0 |
| CYCSP52 | 0 | 0 |
| CYCSP53 | 0 | 0 |
| CYCSP54 | 0 | 0 |
| CYCSP6 | 0 | 0 |
| CYCSP7 | 0 | 0 |
| CYCSP8 | 0 | 0 |
| CYFIP1 | 0.02467762 | 0.042051 |
| CYFIP2 | 47.3727081 | 35.80586 |
| CYGB | 0.01077669 | 0.036727 |
| CYHR1 | 10.4307273 | 10.24844 |
| CYLC1 | 0.01045516 | 0 |
| CYLC2 | 0 | 0.011368 |
| CYLD | 52.593176 | 52.20544 |
| CYMP | 0 | 0 |
| CYorf15A | 0 | 0 |
| CYorf15B | 0 | 0 |
| CYP11A1 | 0.02597858 | 0.009837 |
| CYP11B1 | 0 | 0.006757 |
| CYP11B2 | 0 | 0 |
| CYP17A1 | 0.10119143 | 0.153273 |
| CYP19A1 | 0 | 0 |
| CYP1A1 | 0.1209279 | 0.119059 |
| CYP1A2 | 0 | 0.007638 |
| CYP1B1 | 0.09792508 | 0.083433 |
| CYP20A1 | 1.58703494 | 1.320524 |
| CYP21A1P | 0 | 0 |
| CYP21A2 | 0.0696203 | 0.067791 |
| CYP24A1 | 0 | 0 |
| CYP26A1 | 0.01696275 | 0.01927 |
| CYP26B1 | 0 | 0.005275 |
| CYP26C1 | 0.01340047 | 0.045669 |
| CYP27A1 | 0.00916935 | 0.020833 |
| CYP27B1 | 0.01690819 | 0.019208 |
| CYP27C1 | 0.0044878 | 0.005098 |
| CYP2A13 | 0 | 0 |
| CYP2A6 | 0.56019873 | 0.528072 |
| CYP2A7 | 0.13766039 | 0.083405 |
| CYP2A7P1 | 0 | 0 |
| CYP2B6 | 0.01377807 | 0.03913 |
| CYP2B7P1 | 0 | 0 |
| CYP2C18 | 0 | 0 |
| CYP2C19 | 0 | 0 |
| CYP2C8 | 0 | 0.012414 |
| CYP2C9 | 0 | 0 |
| CYP2D6 | 1.76161604 | 1.612497 |
| CYP2D7P1 | 0 | 0 |

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| CYP2D7P2 | 0 | 0 |
| CYP2D8P1 | 0 | 0 |
| CYP2E1 | 0.01261268 | 0 |
| CYP2F1 | 0.48360564 | 0.523223 |
| CYP2F1P | 0 | 0 |
| CYP2G1P | 0 | 0 |
| CYP2G2P | 0 | 0 |
| CYP2J2 | 0.0113222 | 0 |
| CYP2R1 | 5.46736525 | 3.850533 |
| CYP2S1 | 0.04813124 | 0.027339 |
| CYP2T2P | 0 | 0 |
| CYP2T3P | 0 | 0 |
| CYP2U1 | 0.19910351 | 0.170895 |
| CYP2W1 | 0.01825116 | 0.0311 |
| CYP39A1 | 0 | 0 |
| CYP3A | 0 | 0 |
| CYP3A4 | 0.01519171 | 0 |
| CYP3A43 | 0 | 0 |
| CYP3A5 | 0.07390275 | 0.097947 |
| CYP3A5P1 | 0 | 0 |
| CYP3A5P2 | 0 | 0 |
| CYP3A7 | 0.030325 | 0.057416 |
| CYP46A1 | 0 | 0.0115 |
| CYP4A11 | 0 | 0 |
| CYP4A22 | 0 | 0.01432 |
| CYP4B1 | 0.00974297 | 0 |
| CYP4F11 | 0.00619303 | 0.014071 |
| CYP4F12 | 3.96129424 | 3.489303 |
| CYP4F2 | 0.04454519 | 0.010121 |
| CYP4F22 | 0.00805877 | 0.009155 |
| CYP4F3 | 0.61921992 | 0.671469 |
| CYP4F3LP | 0 | 0 |
| CYP4F8 | 0 | 0 |
| CYP4V2 | 0.1519688 | 0.177717 |
| CYP4X1 | 0 | 0 |
| CYP4Z1 | 0 | 0 |
| CYP4Z2P | 0 | 0 |
| CYP51A1 | 2.02519553 | 1.228505 |
| CYP51P1 | 0 | 0 |
| CYP51P2 | 0 | 0 |
| CYP7A1 | 0.05119211 | 0.008308 |
| CYP7B1 | 0.30725953 | 0.289214 |
| CYP8B1 | 0.14371745 | 0.1935 |
| CYR61 | 0 | 0 |
| CYS1 | 0 | 0.017569 |
| CYSLTR1 | 24.1638546 | 18.94717 |
| CYSLTR2 | 52.0104635 | 47.10466 |

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|---------|------------|----------|
| CYTB | 0 | 0 |
| CYTH1 | 89.4989473 | 63.38824 |
| CYTH2 | 7.84513651 | 7.367211 |
| CYTH3 | 17.280385 | 17.50363 |
| CYTH4 | 24.3754474 | 22.62159 |
| CYTIP | 147.320023 | 100.5444 |
| CYTL1 | 0 | 0 |
| CY TSA | 5.35404562 | 5.250636 |
| CY TSB | 5.14206464 | 3.477836 |
| CYYR1 | 0 | 0 |
| D2HGDH | 3.32535204 | 4.784411 |
| D4S234E | 0.03364053 | 0.038216 |
| DAAM1 | 0.45449494 | 0.465805 |
| DAAM2 | 0.006766 | 0.003843 |
| DAB1 | 0.42376636 | 0.37957 |
| DAB2 | 0.01372112 | 0.010392 |
| DAB2IP | 0.003599 | 0 |
| DACH1 | 18.7753433 | 17.74609 |
| DACH2 | 0.00838331 | 0.009524 |
| DACT1 | 0.00544416 | 0.006185 |
| DACT2 | 0.02143983 | 0.016237 |
| DACT3 | 0.01483792 | 0.025284 |
| DAD1 | 24.3736979 | 23.33681 |
| DAD1L | 0 | 0 |
| DAG1 | 1.40118106 | 1.65232 |
| DAGLA | 0.00731062 | 0.008305 |
| DAGLB | 57.6570932 | 85.87148 |
| DAK | 1.10059502 | 1.013751 |
| DALRD3 | 12.0763541 | 11.25858 |
| DAND5 | 0 | 0.027581 |
| DAO | 0 | 0 |
| DAOA | 0 | 0 |
| DAP | 14.5525455 | 13.12559 |
| DAP3 | 14.7508224 | 13.82213 |
| DAPK1 | 4.84028754 | 2.847871 |
| DAPK2 | 151.385583 | 127.4145 |
| DAPK3 | 15.192175 | 14.33107 |
| DAPL1 | 0 | 0 |
| DAPP1 | 23.39408 | 11.64176 |
| DARC | 0 | 0 |
| DARS | 11.6535749 | 8.558317 |
| DARS2 | 2.05173452 | 1.656294 |
| DAXX | 21.7650367 | 19.75659 |
| DAZ1 | 0 | 0 |
| DAZ2 | 0 | 0 |
| DAZ3 | 0.00620033 | 0 |
| DAZ4 | 0 | 0 |

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| DAZAP1 | 33.1467949 | 35.0399 |
| DAZAP2 | 294.697235 | 277.1282 |
| DAZL | 0 | 0 |
| DBC1 | 0.00657864 | 0.007473 |
| DBF4 | 4.97784263 | 5.667135 |
| DBF4B | 0.52021437 | 0.453078 |
| DBH | 0 | 0 |
| DBI | 35.5522667 | 24.24993 |
| DBIL1 | 0 | 0 |
| DBIL2 | 0 | 0 |
| DBN1 | 6.15035315 | 9.198216 |
| DBNDD1 | 0.68740184 | 0.447716 |
| DBNDD2 | 0.18868887 | 0.061244 |
| DBNL | 144.143906 | 154.5532 |
| DBP | 11.9139276 | 11.44101 |
| DBR1 | 8.26731882 | 8.508507 |
| DBT | 1.0653612 | 1.064505 |
| DBX1 | 0.01829881 | 0.020788 |
| DBX2 | 0 | 0 |
| DCAKD | 1.74488074 | 1.566057 |
| DCBLD1 | 0.76494382 | 0.83278 |
| DCBLD2 | 0.90064195 | 0.991783 |
| DCC | 0 | 0.008395 |
| DCD | 0 | 0 |
| DCDC1 | 0 | 0.014001 |
| DCDC2 | 0 | 0 |
| DCDC2B | 1.58975816 | 1.558109 |
| DCDC5 | 0 | 0 |
| DCHS1 | 0.03518557 | 0.019986 |
| DCHS2 | 0.00519529 | 0 |
| DCI | 7.13104034 | 7.126072 |
| DCK | 9.14565605 | 8.502256 |
| DCLK1 | 0.00260214 | 0 |
| DCLK2 | 0.00582258 | 0.006615 |
| DCLK3 | 0 | 0.00447 |
| DCLRE1A | 0.93644603 | 0.769798 |
| DCLRE1B | 0.77167744 | 0.654207 |
| DCLRE1C | 7.33941689 | 7.238793 |
| DCN | 0 | 0 |
| DCP1A | 9.09307837 | 7.961703 |
| DCP1B | 0.44221537 | 0.548033 |
| DCP2 | 13.239825 | 12.62998 |
| DCPS | 1.05197734 | 0.694428 |
| DCST1 | 0.45205845 | 0.513546 |
| DCST2 | 0.90394147 | 0.908404 |
| DCT | 0 | 0 |
| DCTD | 6.37349651 | 6.819304 |

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| DCTN1 | 15.6345514 | 13.01047 |
| DCTN2 | 21.025331 | 19.23503 |
| DCTN3 | 19.6828044 | 18.24988 |
| DCTN4 | 19.362999 | 17.63832 |
| DCTN5 | 11.9014889 | 11.90302 |
| DCTN6 | 10.4616826 | 8.293763 |
| DCTPP1 | 1.93357954 | 1.279559 |
| DCUN1D1 | 9.46540122 | 9.229715 |
| DCUN1D2 | 7.96172156 | 7.648913 |
| DCUN1D3 | 2.00869619 | 2.323551 |
| DCUN1D4 | 4.33816911 | 3.920182 |
| DCUN1D5 | 4.47777265 | 3.767307 |
| DCX | 0 | 0 |
| DCXR | 19.8840283 | 25.49858 |
| DDA1 | 9.06388716 | 8.873453 |
| DDAH1 | 0.00938212 | 0.005329 |
| DDAH2 | 82.7428126 | 115.8186 |
| DDB1 | 20.2498462 | 18.17537 |
| DDB2 | 5.05154056 | 3.386309 |
| DDC | 0 | 0 |
| DDEF1IT1 | 0 | 0 |
| DDHD1 | 7.11708638 | 9.034334 |
| DDHD2 | 1.7341134 | 2.006061 |
| DDI1 | 0 | 0 |
| DDI2 | 1.0518642 | 0.896201 |
| DDIT3 | 38.4502759 | 40.1144 |
| DDIT4 | 112.651131 | 152.3903 |
| DDIT4L | 0 | 0 |
| DDN | 0.18531942 | 0.338117 |
| DDO | 0 | 0.027952 |
| DDOST | 37.3530927 | 34.69295 |
| DDR1 | 0.14360838 | 0.290029 |
| DDR2 | 0.20042597 | 0.286445 |
| DDRGK1 | 19.29837 | 16.09483 |
| DDT | 2.93714859 | 3.468792 |
| DDTL | 1.98036756 | 1.81147 |
| DDX1 | 5.57878331 | 4.651682 |
| DDX10 | 0.26997763 | 0.276777 |
| DDX11 | 4.74368302 | 4.160279 |
| DDX11L16 | 0 | 0 |
| DDX12 | 1.52764279 | 1.508533 |
| DDX17 | 240.917772 | 224.234 |
| DDX18 | 13.7432509 | 12.22486 |
| DDX18P1 | 0 | 0 |
| DDX18P2 | 0 | 0 |
| DDX18P3 | 0 | 0 |
| DDX18P4 | 0 | 0 |

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|-----------|------------|----------|
| DDX18P5 | 0 | 0 |
| DDX18P6 | 0 | 0 |
| DDX19A | 4.57009433 | 3.95754 |
| DDX19B | 13.5071823 | 14.08103 |
| DDX20 | 5.95493994 | 6.307443 |
| DDX21 | 23.966751 | 13.47527 |
| DDX23 | 41.445709 | 38.80691 |
| DDX24 | 50.8730277 | 47.7054 |
| DDX25 | 0.0230794 | 0 |
| DDX26B | 11.4579311 | 13.66814 |
| DDX27 | 18.8642858 | 16.02385 |
| DDX28 | 8.01468108 | 7.741656 |
| DDX31 | 0.31654619 | 0.271278 |
| DDX39 | 14.2325317 | 16.3601 |
| DDX3X | 106.85183 | 102.3445 |
| DDX3Y | 0.00438484 | 0.004981 |
| DDX4 | 0 | 0 |
| DDX41 | 28.5001159 | 28.70981 |
| DDX42 | 34.2734483 | 33.77293 |
| DDX43 | 0.66289063 | 0.567006 |
| DDX46 | 14.8795219 | 13.55971 |
| DDX47 | 2.39529087 | 2.195274 |
| DDX49 | 10.3278274 | 11.44385 |
| DDX5 | 273.698462 | 240.7001 |
| DDX50 | 8.33391763 | 7.698195 |
| DDX50P1 | 0 | 0 |
| DDX50P2 | 0 | 0 |
| DDX51 | 2.3529832 | 2.207272 |
| DDX52 | 5.35249343 | 5.065046 |
| DDX53 | 0 | 0.022533 |
| DDX54 | 4.4104723 | 3.941779 |
| DDX55 | 3.23158214 | 3.115449 |
| DDX56 | 11.9637094 | 12.32222 |
| DDX58 | 7.53746621 | 6.162117 |
| DDX59 | 13.3764606 | 12.4985 |
| DDX6 | 78.6212994 | 89.75615 |
| DDX60 | 1.52678593 | 1.345086 |
| DDX60L | 7.44634167 | 6.888983 |
| DEAF1 | 3.08103156 | 3.412158 |
| DEC1 | 0 | 0 |
| DECR1 | 3.19329567 | 2.692087 |
| DECR2 | 1.38132307 | 1.735179 |
| DEDD | 21.9480998 | 22.29799 |
| DEDD2 | 32.4460857 | 28.51783 |
| DEF109P1B | 0 | 0 |
| DEF6 | 111.463558 | 126.8948 |
| DEF8 | 45.3578983 | 34.32544 |

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|-----------|------------|----------|
| DEFA1 | 0.51914397 | 0.098293 |
| DEFA10P | 0 | 0 |
| DEFA11P | 0 | 0 |
| DEFA3 | 1.38154125 | 0.686636 |
| DEFA4 | 0 | 0 |
| DEFA5 | 0.09365404 | 0.053196 |
| DEFA6 | 0 | 0 |
| DEFA7P | 0 | 0 |
| DEFA8P | 0 | 0 |
| DEFA9P | 0 | 0 |
| DEFB1 | 0 | 0 |
| DEFB103A | 0 | 0 |
| DEFB103B | 0 | 0 |
| DEFB104A | 0 | 0 |
| DEFB104B | 0 | 0 |
| DEFB105A | 0 | 0 |
| DEFB105B | 0 | 0 |
| DEFB106A | 0 | 0 |
| DEFB106B | 0 | 0 |
| DEFB107A | 0 | 0 |
| DEFB107B | 0 | 0 |
| DEFB108B | 0 | 0 |
| DEFB108P1 | 0 | 0 |
| DEFB108P2 | 0 | 0 |
| DEFB108P3 | 0 | 0 |
| DEFB108P4 | 0 | 0 |
| DEFB109P1 | 0 | 0 |
| DEFB110 | 0 | 0 |
| DEFB111 | 0 | 0 |
| DEFB112 | 0 | 0 |
| DEFB113 | 0 | 0 |
| DEFB114 | 0 | 0 |
| DEFB115 | 0 | 0 |
| DEFB116 | 0 | 0 |
| DEFB117 | 0 | 0 |
| DEFB118 | 0 | 0.040552 |
| DEFB119 | 0 | 0 |
| DEFB121 | 0 | 0 |
| DEFB122 | 0 | 0 |
| DEFB123 | 0 | 0 |
| DEFB124 | 0 | 0 |
| DEFB125 | 0 | 0 |
| DEFB126 | 0 | 0 |
| DEFB127 | 0 | 0 |
| DEFB128 | 0 | 0 |
| DEFB129 | 0 | 0 |
| DEFB130 | 0 | 0 |

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| DEFB131 | 0 | 0 |
| DEFB132 | 0 | 0 |
| DEFB133 | 0 | 0 |
| DEFB134 | 0 | 0 |
| DEFB136 | 0 | 0 |
| DEFB137 | 0 | 0 |
| DEFB4 | 0 | 0 |
| DEFT1P | 0 | 0 |
| DEGS1 | 39.4199265 | 39.13142 |
| DEGS2 | 0.31425762 | 0.595003 |
| DEK | 23.7422929 | 22.2545 |
| DEM1 | 0.7871459 | 0.646417 |
| DENND1A | 3.97532829 | 4.369064 |
| DENND1B | 5.40583026 | 5.638408 |
| DENND1C | 38.5602313 | 38.90837 |
| DENND2A | 0.01214635 | 0 |
| DENND2C | 0.85180631 | 0.643107 |
| DENND2D | 4.84962335 | 4.538405 |
| DENND3 | 216.459722 | 241.0711 |
| DENND4A | 6.46712945 | 5.388059 |
| DENND4B | 43.8840944 | 49.65986 |
| DENND4C | 5.53250913 | 5.053862 |
| DENND5A | 63.0971664 | 75.05168 |
| DENND5B | 0.75674176 | 0.913082 |
| DENR | 8.34556587 | 7.545541 |
| DEPDC1 | 0.0039425 | 0.013436 |
| DEPDC1B | 0.30228112 | 0.352935 |
| DEPDC1P1 | 0 | 0 |
| DEPDC1P2 | 0 | 0 |
| DEPDC4 | 0.01820375 | 0 |
| DEPDC5 | 16.5428618 | 16.11392 |
| DEPDC6 | 0.02397415 | 0.05447 |
| DEPDC7 | 0.55509211 | 0.099567 |
| DERA | 2.45132919 | 2.175152 |
| DERL1 | 18.8769026 | 17.58325 |
| DERL2 | 20.0365621 | 18.43837 |
| DERL3 | 0.13797873 | 0.179138 |
| DES | 0.00935291 | 0 |
| DET1 | 0.26921038 | 0.224273 |
| DEXI | 6.27538193 | 6.158253 |
| DFFA | 2.28884912 | 2.039486 |
| DFFB | 3.99259092 | 4.937939 |
| DFNA5 | 0.00820021 | 0.009316 |
| DFNB31 | 0.2478925 | 0.298851 |
| DFNB59 | 0.02753809 | 0.031284 |
| DGAT1 | 21.4225707 | 21.66744 |
| DGAT2 | 42.3936526 | 35.7887 |

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|----------------|------------|----------|
| DGAT2L6 | 0 | 0 |
| DGCR10 | 0 | 0 |
| DGCR11 | 0 | 0 |
| DGCR14 | 3.92004314 | 3.357665 |
| DGCR2 | 26.5723797 | 21.97281 |
| DGCR5 | 0 | 0 |
| DGCR6 | 2.33807222 | 2.79381 |
| DGCR6L | 9.12488479 | 9.562287 |
| DGCR8 | 3.22883939 | 3.382962 |
| DGCR9 | 0 | 0 |
| DGKA | 41.2041429 | 39.60003 |
| DGKB | 0 | 0.003164 |
| DGKD | 66.1063751 | 51.69444 |
| DGKE | 0.12991966 | 0.190638 |
| DGKG | 0.64141392 | 0.444604 |
| DGKH | 0.03464626 | 0.022491 |
| DGKI | 0.01319581 | 0 |
| DGKK | 0.00536771 | 0.006098 |
| DGKQ | 7.40149701 | 6.79046 |
| DGKZ | 50.6611973 | 72.44153 |
| DGUOK | 31.4828601 | 29.18827 |
| DHCR24 | 0.45621927 | 0.323224 |
| DHCR7 | 25.0489403 | 33.20613 |
| DHDDS | 3.42035829 | 3.118595 |
| DHDH | 0 | 0.066286 |
| DHFR | 0.7997892 | 0.853693 |
| DHFRL1 | 0.8461687 | 0.795746 |
| DHFRP1 | 0 | 0 |
| DHFRP2 | 0 | 0 |
| DHH | 0 | 0.037012 |
| DHODH | 0.2035366 | 0.254343 |
| DHPS | 15.9792515 | 13.64606 |
| DHRS1 | 9.17801404 | 6.507827 |
| DHRS11 | 1.01311044 | 1.061228 |
| DHRS12 | 0.29005863 | 0.382945 |
| DHRS13 | 2.88947807 | 3.655503 |
| DHRS2 | 0 | 0.014158 |
| DHRS3 | 0.51224505 | 0.886103 |
| DHRS4 | 0.65806983 | 0.897093 |
| DHRS4L1 | 0.08416866 | 0.076494 |
| DHRS4L2 | 0.55088203 | 0.712729 |
| DHRS7 | 180.240858 | 231.3012 |
| DHRS7B | 3.3487618 | 3.752134 |
| DHRS7C | 0 | 0 |
| DHRS9 | 0.9467207 | 0.41568 |
| DHRSX (NC_000C | 2.66794072 | 2.456172 |
| DHRSX (NC_000C | 2.51292275 | 3.234732 |

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|---------|------------|----------|
| DHTKD1 | 4.00193463 | 3.033905 |
| DHX15 | 28.380014 | 24.8988 |
| DHX16 | 20.7513853 | 20.27087 |
| DHX29 | 5.21285313 | 4.976732 |
| DHX30 | 5.90299372 | 5.69135 |
| DHX32 | 0.95196124 | 0.95696 |
| DHX33 | 2.07415535 | 1.770136 |
| DHX34 | 9.35636864 | 8.992492 |
| DHX35 | 2.75794253 | 2.792988 |
| DHX36 | 12.0003343 | 10.89415 |
| DHX37 | 0.53152628 | 0.493559 |
| DHX38 | 28.8992088 | 26.14277 |
| DHX40 | 10.092849 | 7.924682 |
| DHX40P | 0 | 0 |
| DHX57 | 0.50495619 | 0.509351 |
| DHX58 | 5.4150069 | 4.371787 |
| DHX8 | 21.8763563 | 20.18292 |
| DHX9 | 40.6101009 | 38.7305 |
| DHX9P | 0 | 0 |
| DIABLO | 14.6633881 | 13.23048 |
| DIAPH1 | 96.5603757 | 92.39701 |
| DIAPH2 | 1.99265032 | 2.1845 |
| DIAPH3 | 0.01264301 | 0.014363 |
| DICER1 | 10.8558867 | 9.259092 |
| DIDO1 | 8.33990495 | 8.194544 |
| DIMT1L | 2.67374151 | 2.055623 |
| DIO1 | 0.22607883 | 0.231146 |
| DIO2 | 0.00927179 | 0 |
| DIO3 | 0 | 0 |
| DIO3OS | 0 | 0 |
| DIP2A | 16.2063037 | 14.57955 |
| DIP2B | 10.2822674 | 9.808928 |
| DIP2C | 0.00266278 | 0.015125 |
| DIRAS1 | 0.14231389 | 0.063263 |
| DIRAS2 | 0.06143267 | 0.023263 |
| DIRAS3 | 0.01289107 | 0 |
| DIRC1 | 0.01446034 | 0 |
| DIRC2 | 8.30428115 | 7.73743 |
| DIRC3 | 0 | 0 |
| DIS3 | 6.67128953 | 5.701827 |
| DIS3L | 2.29476782 | 1.878954 |
| DIS3L2 | 1.04466236 | 0.988961 |
| DIS3L2P | 0 | 0 |
| DISC1 | 0.3208512 | 0.375372 |
| DISC2 | 0 | 0 |
| DISP1 | 0.23494466 | 0.135968 |
| DISP2 | 0.05849655 | 0.09968 |

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|----------------|------------|----------|
| DIXDC1 | 2.3028371 | 2.230574 |
| dJ341D10.1 | 0 | 0 |
| DKC1 | 14.645118 | 13.71749 |
| DKFZp434E1119 | 0 | 0 |
| DKFZP434H168 | 0 | 0 |
| DKFZP434I0714 | 0.34159192 | 0.213826 |
| DKFZp434J0226 | 0 | 0 |
| DKFZP434K028 | 0 | 0 |
| DKFZP434L187 | 0 | 0 |
| DKFZp434L192 | 0 | 0 |
| DKFZp451A211 | 0 | 0 |
| DKFZp564N2472 | 0 | 0 |
| DKFZP564O0823 | 0 | 0.00474 |
| DKFZp566F0947 | 0 | 0 |
| DKFZP586I1420 | 0 | 0 |
| DKFZp667F0711 | 0.14030249 | 0.182155 |
| DKFZp686A1627 | 0 | 0 |
| DKFZp686E2433 | 0.90431531 | 0.770487 |
| DKFZP686I15217 | 0 | 0 |
| DKFZp686L1318 | 0.00568099 | 0.006454 |
| DKFZp686O2416 | 0 | 0 |
| DKFZp761E198 | 17.4297631 | 28.96271 |
| DKFZP779L1853 | 0 | 0 |
| DKFZp779M0652 | 0 | 0 |
| DKFZP781G0119 | 0 | 0 |
| DKK1 | 0 | 0 |
| DKK2 | 0 | 0 |
| DKK3 | 0.01406377 | 0.007988 |
| DKK4 | 0 | 0.029199 |
| DKKL1 | 0 | 0 |
| DKKL2 | 0 | 0 |
| DLAT | 2.25723127 | 2.260298 |
| DLC1 | 0.00524388 | 0.011914 |
| DLD | 22.7407254 | 17.96555 |
| DLEC1 | 0.19100318 | 0.14891 |
| DLEU1 | 0 | 0 |
| DLEU2 | 0 | 0 |
| DLEU2L | 0 | 0 |
| DLEU7 | 0.01781808 | 0 |
| DLG1 | 5.92841317 | 5.080534 |
| DLG2 | 0.01665844 | 0.024331 |
| DLG3 | 0.1181019 | 0.126913 |
| DLG4 | 0.11789905 | 0.143856 |
| DLG5 | 0.45823358 | 0.443914 |
| DLGAP1 | 0.15414466 | 0.154097 |
| DLGAP2 | 0 | 0 |
| DLGAP3 | 0.01172307 | 0.006659 |

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| DLGAP4 | 6.50647789 | 6.846956 |
| DLGAP5 | 0.0141157 | 0 |
| DLGAP5P1 | 0 | 0 |
| DLK1 | 0.01372411 | 0.046772 |
| DLK2 | 0.10447369 | 0.16319 |
| DLL1 | 0.06352064 | 0.064944 |
| DLL3 | 0 | 0 |
| DLL4 | 0.11186993 | 0.148267 |
| DLST | 44.5097212 | 46.98905 |
| DLSTP | 0 | 0 |
| DLX1 | 0 | 0 |
| DLX2 | 0 | 0 |
| DLX3 | 0.00808045 | 0 |
| DLX4 | 0.00907438 | 0.020617 |
| DLX5 | 0 | 0 |
| DLX6 | 0 | 0 |
| DMAP1 | 9.42925375 | 8.466636 |
| DMBT1 | 0 | 0.003108 |
| DMBX1 | 0 | 0 |
| DMC1 | 0.00926634 | 0 |
| DMD | 0.00936958 | 0.012165 |
| DMGDH | 0 | 0.007747 |
| DMKN | 0.00850195 | 0.009658 |
| DMP1 | 0 | 0 |
| DMPK | 0.02336148 | 0.01327 |
| DMRT1 | 0.01892469 | 0 |
| DMRT2 | 0 | 0 |
| DMRT3 | 0 | 0.010936 |
| DMRTA1 | 0.01826701 | 0 |
| DMRTA2 | 0 | 0 |
| DMRTB1 | 0 | 0 |
| DMRTC1 | 0 | 0 |
| DMRTC1B | 0 | 0 |
| DMRTC2 | 0 | 0.026233 |
| DMTF1 | 29.8210851 | 29.88602 |
| DMWD | 0.04449133 | 0.072204 |
| DMXL1 | 2.35977491 | 1.977421 |
| DMXL2 | 4.78336216 | 3.402161 |
| DNA2 | 0.51420646 | 0.465154 |
| DNAH1 | 1.86998748 | 1.907529 |
| DNAH10 | 0.12141821 | 0.148409 |
| DNAH11 | 0.01185528 | 0.013468 |
| DNAH12 | 0.0062594 | 0.00237 |
| DNAH14 | 0.00581734 | 0.003304 |
| DNAH17 | 2.81481982 | 2.438649 |
| DNAH2 | 0.00311371 | 0.008843 |
| DNAH3 | 0.00510695 | 0.009669 |

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| DNAH5 | 0.00405034 | 0.001534 |
| DNAH6 | 0.00164325 | 0.007467 |
| DNAH7 | 0.01866053 | 0.015417 |
| DNAH8 | 0.00145283 | 0.006602 |
| DNAH9 | 0.00299912 | 0.003407 |
| DNAI1 | 0.00834008 | 0.009474 |
| DNAI2 | 0 | 0.010531 |
| DNAJA1 | 34.6548856 | 31.32397 |
| DNAJA2 | 29.1512627 | 43.85206 |
| DNAJA3 | 0.77555629 | 0.5903 |
| DNAJA4 | 5.71774273 | 7.99712 |
| DNAJB1 | 15.4135543 | 14.80385 |
| DNAJB11 | 18.9464498 | 16.54564 |
| DNAJB12 | 17.4857454 | 16.74697 |
| DNAJB13 | 0.10092159 | 0.076432 |
| DNAJB14 | 13.5912118 | 12.40022 |
| DNAJB1P | 0 | 0 |
| DNAJB2 | 23.2052373 | 24.05326 |
| DNAJB3 | 0 | 0 |
| DNAJB4 | 1.7740123 | 1.578123 |
| DNAJB5 | 0.03625057 | 0.115307 |
| DNAJB6 | 34.3128128 | 35.35595 |
| DNAJB7 | 0 | 0 |
| DNAJB8 | 0.00851918 | 0 |
| DNAJB9 | 5.37382985 | 5.308921 |
| DNAJC1 | 4.15277938 | 4.843274 |
| DNAJC10 | 0.73711511 | 0.734839 |
| DNAJC11 | 1.94099624 | 1.27658 |
| DNAJC12 | 0.01376003 | 0 |
| DNAJC13 | 5.15673613 | 4.06683 |
| DNAJC14 | 15.5132847 | 13.6138 |
| DNAJC15 | 1.30272224 | 1.51433 |
| DNAJC16 | 2.02401526 | 1.760164 |
| DNAJC17 | 9.86687233 | 7.985757 |
| DNAJC18 | 0.79015796 | 0.647915 |
| DNAJC19 | 3.83088657 | 3.829039 |
| DNAJC2 | 7.92727216 | 7.213044 |
| DNAJC21 | 5.107313 | 5.532665 |
| DNAJC22 | 0 | 0.012988 |
| DNAJC24 | 2.41791306 | 1.82323 |
| DNAJC25 | 1.04755838 | 0.874102 |
| DNAJC25-GNG1C | 0.9292964 | 0.3464 |
| DNAJC27 | 1.09177486 | 1.195978 |
| DNAJC28 | 0.82981079 | 0.789493 |
| DNAJC3 | 33.8530056 | 28.28894 |
| DNAJC30 | 0.26551326 | 0.207369 |
| DNAJC4 | 28.5028222 | 28.60637 |

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| DNAJC5 | 37.0684175 | 43.90851 |
| DNAJC5B | 0 | 0 |
| DNAJC5G | 0 | 0 |
| DNAJC6 | 0.03290921 | 0.074771 |
| DNAJC7 | 23.3789863 | 22.52025 |
| DNAJC8 | 29.1733912 | 28.78393 |
| DNAJC8P1 | 0 | 0 |
| DNAJC9 | 10.9735548 | 8.410484 |
| DNAL1 | 0.39224041 | 0.399618 |
| DNAL4 | 1.96538063 | 1.702637 |
| DNALI1 | 0.00793708 | 0 |
| DNASE1 | 4.22814112 | 5.258116 |
| DNASE1L1 | 10.6905497 | 13.23122 |
| DNASE1L2 | 0 | 0.090065 |
| DNASE1L3 | 0.07185691 | 0.016326 |
| DNASE2 | 0.84813337 | 1.153813 |
| DNASE2B | 0 | 0.017758 |
| DND1 | 8.99773989 | 11.23479 |
| DNER | 0.00642583 | 0.0073 |
| DNHD1 | 1.00695259 | 1.029675 |
| DNLZ | 7.14396604 | 7.389868 |
| DNM1 | 0.0581703 | 0.051397 |
| DNM1L | 6.87471793 | 6.085213 |
| DNM1P17 | 0 | 0 |
| DNM1P18 | 0 | 0 |
| DNM1P19 | 0 | 0 |
| DNM1P24 | 0 | 0 |
| DNM1P25 | 0 | 0 |
| DNM1P26 | 0 | 0 |
| DNM1P27 | 0 | 0 |
| DNM1P28 | 0 | 0 |
| DNM1P29 | 0 | 0 |
| DNM1P30 | 0 | 0 |
| DNM1P31 | 0 | 0 |
| DNM1P32 | 0 | 0 |
| DNM1P33 | 0 | 0 |
| DNM1P34 | 0 | 0 |
| DNM1P35 | 0 | 0 |
| DNM1P36 | 0 | 0 |
| DNM1P37 | 0 | 0 |
| DNM1P38 | 0 | 0 |
| DNM1P39 | 0 | 0 |
| DNM1P40 | 0 | 0 |
| DNM1P42 | 0 | 0 |
| DNM1P43 | 0 | 0 |
| DNM1P44 | 0 | 0 |
| DNM1P45 | 0 | 0 |

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| DNM1P46 | 0 | 0 |
| DNM1P47 | 0 | 0 |
| DNM1P5 | 0 | 0 |
| DNM1P9 | 0 | 0 |
| DNM2 | 155.599712 | 190.321 |
| DNM3 | 0.08526756 | 0.034372 |
| DNMBP | 1.04141092 | 1.160667 |
| DNMT1 | 8.11032674 | 13.43316 |
| DNMT3A | 4.76101549 | 6.069827 |
| DNMT3AP1 | 0 | 0 |
| DNMT3B | 0.14077435 | 0.201192 |
| DNMT3L | 0.01233157 | 0.070044 |
| DNPEP | 2.69931443 | 2.243515 |
| DNTT | 0 | 0 |
| DNTTIP1 | 29.9244245 | 26.03292 |
| DNTTIP2 | 16.1488676 | 17.62279 |
| DOC2A | 0.05088415 | 0.034683 |
| DOC2B | 0.07823379 | 0 |
| DOCK1 | 0.00316551 | 0.007192 |
| DOCK10 | 2.24372056 | 1.626412 |
| DOCK11 | 28.5131108 | 27.20988 |
| DOCK2 | 50.278715 | 48.303 |
| DOCK3 | 0.03362132 | 0.010913 |
| DOCK4 | 0.09836707 | 0.094555 |
| DOCK5 | 14.7135572 | 14.19196 |
| DOCK6 | 0.08888115 | 0.089751 |
| DOCK7 | 0.02981471 | 0.03387 |
| DOCK8 | 61.2156014 | 64.81308 |
| DOCK9 | 0.04178429 | 0.038567 |
| DOHH | 0.64300769 | 0.452194 |
| DOK1 | 19.401152 | 20.71307 |
| DOK2 | 144.065093 | 113.1372 |
| DOK3 | 178.004117 | 229.6569 |
| DOK4 | 0.07645575 | 0.052113 |
| DOK5 | 0 | 0 |
| DOK6 | 0 | 0.002846 |
| DOK7 | 0.27858973 | 0.642273 |
| DOLK | 1.50726057 | 1.094554 |
| DOLPP1 | 0.88893863 | 0.625667 |
| DOM3Z | 6.50595147 | 6.399407 |
| DONSON | 3.02299689 | 3.103964 |
| DOPEY1 | 6.67039871 | 5.796652 |
| DOPEY2 | 14.6977441 | 16.73109 |
| DOT1L | 11.5588425 | 10.49711 |
| DPAGT1 | 2.42448961 | 1.917945 |
| DPCR1 | 0 | 0 |
| DPEP1 | 0 | 0 |

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|----------------|------------|----------|
| DPEP2 | 248.539342 | 216.0841 |
| DPEP3 | 15.5451958 | 18.31925 |
| DPF1 | 0.00849508 | 0 |
| DPF2 | 27.5101051 | 25.4021 |
| DPF3 | 0.04629091 | 0.031552 |
| DPH1 | 3.02688136 | 3.112137 |
| DPH2 | 0.72414035 | 0.506973 |
| DPH3 | 3.66714875 | 3.137675 |
| DPH3B | 0 | 0 |
| DPH5 | 0.77914667 | 0.620907 |
| DPM1 | 23.716252 | 22.01445 |
| DPM2 | 8.10977051 | 7.008049 |
| DPM3 | 10.800947 | 9.999433 |
| DPP10 | 0.01688443 | 0.043157 |
| DPP3 | 5.46173465 | 5.102364 |
| DPP4 | 0 | 0.012249 |
| DPP6 (NC_0000C | 0.01419671 | 0 |
| DPP6 (NC_0000C | 0.00538283 | 0 |
| DPP7 | 22.6636684 | 24.59413 |
| DPP8 | 11.8041237 | 10.64771 |
| DPP9 | 16.9138201 | 16.82026 |
| DPPA2 | 0 | 0 |
| DPPA2P1 | 0 | 0 |
| DPPA3 | 0 | 0 |
| DPPA4 | 0.48514253 | 0.517214 |
| DPPA5 | 0.06871023 | 0.078056 |
| DPRX | 0 | 0 |
| DPRXP1 | 0 | 0 |
| DPRXP2 | 0 | 0 |
| DPRXP3 | 0 | 0 |
| DPRXP4 | 0 | 0 |
| DPRXP5 | 0 | 0 |
| DPRXP6 | 0 | 0 |
| DPRXP7 | 0 | 0 |
| DPT | 0 | 0.014025 |
| DPY19L1 | 8.42309765 | 10.48195 |
| DPY19L1P1 | 0 | 0 |
| DPY19L2 | 0.06737227 | 0.129522 |
| DPY19L2P1 | 0 | 0 |
| DPY19L2P2 | 0 | 0 |
| DPY19L2P3 | 0 | 0 |
| DPY19L2P4 | 0 | 0 |
| DPY19L3 | 8.72437993 | 8.0564 |
| DPY19L4 | 0.21922466 | 0.176246 |
| DPY30 | 9.85562389 | 8.389645 |
| DPYD | 1.21954483 | 1.208217 |
| DPYS | 0.01980719 | 0.011251 |

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| DPYSL2 | 0.09725373 | 0.047349 |
| DPYSL3 | 0 | 0.00473 |
| DPYSL4 | 0.01546549 | 0.026354 |
| DPYSL5 | 0 | 0.004585 |
| DQX1 | 0.01596456 | 0.018136 |
| DR1 | 28.7370214 | 31.86418 |
| DRAM | 4.3023892 | 4.19995 |
| DRAP1 | 68.2046414 | 81.03531 |
| DRD1 | 0 | 0 |
| DRD2 | 0.00779004 | 0 |
| DRD3 | 0 | 0 |
| DRD4 | 0.89666853 | 1.229381 |
| DRD5 | 0.00884905 | 0 |
| DRD5P1 | 0 | 0 |
| DRD5P2 | 0 | 0 |
| DRG1 | 10.4256641 | 10.04822 |
| DRG2 | 9.20971859 | 8.7545 |
| DRGX | 0 | 0 |
| DRP2 | 0.00590765 | 0.003356 |
| DSC1 | 0.00984562 | 0.011185 |
| DSC2 | 39.8739689 | 39.86923 |
| DSC3 | 0.03314397 | 0.020537 |
| DSCAM | 0.0088727 | 0.00336 |
| DSCAML1 | 0.00609518 | 0.006924 |
| DSCC1 | 0.37992004 | 0.505282 |
| DSCR10 | 0 | 0 |
| DSCR3 | 19.5637115 | 17.71363 |
| DSCR4 | 0 | 0 |
| DSCR6 | 0.00940731 | 0 |
| DSCR8 | 0 | 0 |
| DSCR9 | 0 | 0 |
| DSE | 26.794722 | 33.07916 |
| DSEL | 0.01132708 | 0.002574 |
| DSG1 | 0.00385998 | 0 |
| DSG2 | 0.08554442 | 0.046477 |
| DSG3 | 0 | 0 |
| DSG4 | 0 | 0 |
| DSN1 | 4.13489822 | 3.454183 |
| DSP | 0.01512614 | 0.007364 |
| DSPP | 0 | 0 |
| DST | 0.40950762 | 0.313561 |
| DSTN | 16.0158592 | 17.04516 |
| DSTYK | 7.03679998 | 7.060739 |
| DTD1 | 2.5513194 | 2.095185 |
| DTL | 0.04288939 | 0.070378 |
| DTNA | 0.02822733 | 0.016033 |
| DTNB | 2.74502098 | 2.413613 |

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|---------|------------|----------|
| DTNBP1 | 4.37627371 | 4.028814 |
| DTWD1 | 0.64222829 | 0.79038 |
| DTWD2 | 0.36775307 | 0.326535 |
| DTX1 | 0.04476196 | 0.029057 |
| DTX2 | 11.1503618 | 11.66719 |
| DTX3 | 0.02072482 | 0.047087 |
| DTX3L | 4.85900939 | 4.61718 |
| DTX4 | 1.49481214 | 0.993324 |
| DTYMK | 1.17805748 | 0.816585 |
| DUB3 | 0 | 0 |
| DUB4 | 0 | 0 |
| DULLARD | 57.3407813 | 50.8991 |
| DUOX1 | 0.15925475 | 0.180916 |
| DUOX2 | 0.34456893 | 0.146788 |
| DUOXA1 | 0.02236737 | 0 |
| DUOXA2 | 0.11680739 | 0.033174 |
| DUPD1 | 0 | 0 |
| DUS1L | 18.2505287 | 18.13167 |
| DUS2L | 19.8681736 | 17.05193 |
| DUS3L | 2.80201395 | 2.230516 |
| DUS4L | 0.31771611 | 0.286621 |
| DUSP1 | 58.672673 | 62.21982 |
| DUSP10 | 1.29906277 | 1.394589 |
| DUSP11 | 12.3663325 | 11.64381 |
| DUSP12 | 5.23529058 | 4.245392 |
| DUSP13 | 0.01147045 | 0.013031 |
| DUSP14 | 0.19519538 | 0.221745 |
| DUSP15 | 0.01213233 | 0.013783 |
| DUSP16 | 3.34895905 | 2.384492 |
| DUSP18 | 3.58279182 | 3.213243 |
| DUSP19 | 0.13289854 | 0.075487 |
| DUSP2 | 0.51159559 | 0.609531 |
| DUSP21 | 0 | 0 |
| DUSP22 | 5.69288164 | 5.370521 |
| DUSP23 | 6.53780364 | 6.136904 |
| DUSP26 | 0 | 0.014485 |
| DUSP27 | 0.00521203 | 0.011842 |
| DUSP28 | 5.05689632 | 6.343762 |
| DUSP3 | 3.45321423 | 3.169615 |
| DUSP4 | 0.16911787 | 0.113012 |
| DUSP5 | 1.53032472 | 1.766818 |
| DUSP5P | 0 | 0 |
| DUSP6 | 3.41475233 | 1.041797 |
| DUSP7 | 1.05211503 | 1.214497 |
| DUSP8 | 0.018802 | 0.032039 |
| DUSP9 | 0.00883417 | 0 |
| DUT | 3.41685031 | 3.37114 |

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|----------|------------|----------|
| DUX4 | 0 | 0 |
| DUX4C | 0 | 0 |
| DUX4L16 | 0 | 0 |
| DUX4L17 | 0 | 0 |
| DUX4L18 | 0 | 0 |
| DUX4L19 | 0 | 0 |
| DUXA | 0 | 0 |
| DUXAP1 | 0 | 0 |
| DUXAP10 | 0 | 0 |
| DUXAP2 | 0 | 0 |
| DUXAP3 | 0 | 0 |
| DUXAP4 | 0 | 0 |
| DUXAP5 | 0 | 0 |
| DUXAP6 | 0 | 0 |
| DUXAP7 | 0 | 0 |
| DUXAP8 | 0 | 0 |
| DUXAP9 | 0 | 0 |
| DVL1 | 4.7026561 | 4.770487 |
| DVL1L1 | 0 | 0 |
| DVL2 | 8.17032092 | 6.897855 |
| DVL3 | 48.1688588 | 70.95227 |
| DYDC1 | 0 | 0 |
| DYDC2 | 0 | 0 |
| DYM | 9.16057989 | 8.861485 |
| DYNC1H1 | 31.0878726 | 37.963 |
| DYNC1I1 | 0 | 0 |
| DYNC1I2 | 3.77357016 | 3.460679 |
| DYNC1LI1 | 14.0873948 | 14.76359 |
| DYNC1LI2 | 21.8933047 | 19.02656 |
| DYNC2H1 | 0.02609173 | 0.026153 |
| DYNC2LI1 | 0.56469107 | 0.577348 |
| DYNLL1 | 18.2903286 | 14.78255 |
| DYNLL2 | 47.5073017 | 47.64467 |
| DYNLRB1 | 44.4754811 | 38.94842 |
| DYNLRB2 | 0 | 0 |
| DYNLT1 | 4.74960714 | 3.471073 |
| DYNLT3 | 1.19548362 | 0.679044 |
| DYRK1A | 17.6027442 | 16.61693 |
| DYRK1B | 3.94795169 | 2.807796 |
| DYRK2 | 10.4938898 | 8.706295 |
| DYRK3 | 0 | 0.010564 |
| DYRK4 | 0.20512518 | 0.168296 |
| DYSF | 0.00866667 | 0.006564 |
| DYSFIP1 | 0.15788734 | 0.179363 |
| DYTN | 0 | 0 |
| DYX1C1 | 2.69464613 | 3.020882 |
| DZIP1 | 0.00280787 | 0.009569 |

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|-----------------|------------|----------|
| DZIP1L | 0.95706488 | 0.861587 |
| DZIP3 | 0.15934029 | 0.103436 |
| E2F1 | 2.76444166 | 1.610033 |
| E2F2 | 0.44950149 | 0.202416 |
| E2F3 | 8.81896992 | 12.62683 |
| E2F3P1 | 0 | 0 |
| E2F4 | 41.5500588 | 50.1701 |
| E2F5 | 0.0113283 | 0.051477 |
| E2F6 | 2.68657007 | 2.889803 |
| E2F7 | 0.96685027 | 1.181566 |
| E2F8 | 0.0169696 | 0.006426 |
| E4F1 | 11.3012175 | 11.38093 |
| EA1F1 | 7.64089011 | 7.030354 |
| EA1F2 | 5.73043334 | 5.690276 |
| EAPP | 27.9037961 | 26.13541 |
| EARS2 | 0.06368096 | 0.0422 |
| EBAG9 | 2.34869433 | 1.936977 |
| EBF1 | 0.019933 | 0.04076 |
| EBF2 | 0 | 0 |
| EBF3 | 0.00482122 | 0.005477 |
| EBF4 | 0.02166815 | 0.049231 |
| EBI3 | 0.03695137 | 0 |
| EBNA1BP2 | 4.34184217 | 4.010964 |
| EBP | 19.1535859 | 15.483 |
| EBPL | 0.18402916 | 0.339723 |
| ECD | 7.42547005 | 7.228927 |
| ECE1 | 13.5563359 | 17.99814 |
| ECE2 | 0.04338101 | 0.071184 |
| ECEL1 | 0.00735409 | 0 |
| ECEL1P2 | 0 | 0 |
| ECEL1P3 | 0 | 0 |
| ECH1 | 36.3406948 | 37.65262 |
| ECHDC1 | 5.0474864 | 4.525284 |
| ECHDC2 | 2.7914482 | 2.256381 |
| ECHDC3 | 17.5295837 | 10.42627 |
| ECHS1 | 2.15157638 | 2.605975 |
| ECM1 | 0.26477796 | 0.389915 |
| ECM2 | 0 | 0 |
| ECOP | 74.0243055 | 81.82922 |
| ECSCR (NC_0000) | 0 | 0 |
| ECSCR (NC_0000) | 0 | 0 |
| ECSIT | 1.14797059 | 1.162361 |
| ECT2 | 0.08603716 | 0.103848 |
| ECT2L | 0.02467183 | 0.022422 |
| EDA | 0.0682008 | 0.06272 |
| EDA2R | 0 | 0 |
| EDAR | 0.0049894 | 0.005668 |

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| EDARADD | 0.04181372 | 0.063335 |
| EDC3 | 3.17265992 | 2.97023 |
| EDC4 | 16.8976586 | 16.11879 |
| EDEM1 | 30.5009108 | 30.66673 |
| EDEM2 | 26.1140546 | 30.37766 |
| EDEM3 | 10.3034267 | 8.841668 |
| EDF1 | 67.5284159 | 65.50452 |
| EDIL3 | 0 | 0 |
| EDN1 | 0.40048249 | 0.557319 |
| EDN2 | 0 | 0 |
| EDN3 | 0.01582041 | 0 |
| EDNRA | 0.00975201 | 0 |
| EDNRB | 0 | 0 |
| EEA1 | 1.52376508 | 1.349003 |
| EED | 6.25337423 | 5.782502 |
| EEF1A1 | 122.434238 | 105.844 |
| EEF1A1P | 0 | 0 |
| EEF1A1P2 | 0 | 0 |
| EEF1A2 | 0.04568241 | 0.116766 |
| EEF1AL11 | 0 | 0 |
| EEF1AL12 | 0 | 0 |
| EEF1AL3 | 0 | 0 |
| EEF1AL4 | 0 | 0 |
| EEF1AL5 | 0 | 0 |
| EEF1AL6 | 0 | 0 |
| EEF1AL7 | 0 | 0 |
| EEF1AL9 | 0 | 0 |
| EEF1B1 | 0 | 0 |
| EEF1B2 | 10.7399664 | 8.822428 |
| EEF1B3 | 0 | 0 |
| EEF1B4 | 0 | 0 |
| EEF1D | 46.5622576 | 46.96914 |
| EEF1DP1 | 0 | 0 |
| EEF1DP2 | 0 | 0 |
| EEF1DP3 | 0 | 0 |
| EEF1DP4 | 0 | 0 |
| EEF1DP5 | 0 | 0 |
| EEF1E1 | 1.40168873 | 1.093535 |
| EEF1G | 55.5571814 | 55.61286 |
| EEF2 | 78.6286126 | 77.24466 |
| EEF2K | 2.33457196 | 1.572576 |
| EEFSEC | 1.82168933 | 2.091025 |
| EEPD1 | 26.2244687 | 16.87806 |
| EFCAB1 | 0 | 0 |
| EFCAB10 | 0 | 0 |
| EFCAB2 | 0.20336658 | 0.147018 |
| EFCAB3 | 0.17970368 | 0.01361 |

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| EFCAB4A | 20.7480738 | 27.32352 |
| EFCAB4B | 4.14732565 | 3.859965 |
| EFCAB5 | 0.55390918 | 0.403172 |
| EFCAB6 | 0 | 0 |
| EFCAB7 | 0.31168428 | 0.20233 |
| EFCAB8 | 0.18047494 | 0.211052 |
| EFEMP1 | 0 | 0 |
| EFEMP2 | 3.61094051 | 6.427396 |
| EFHA1 | 14.9443654 | 15.16717 |
| EFHA2 | 0.40138788 | 0.299989 |
| EFHB | 0.05151464 | 0.066882 |
| EFHC1 | 0.88139152 | 0.757374 |
| EFHC2 | 0.38145588 | 0.345203 |
| EFHD1 | 0.02251106 | 0.025573 |
| EFHD2 | 319.771725 | 325.8777 |
| EFNA1 | 0.83242051 | 3.263993 |
| EFNA2 | 0.06549947 | 0 |
| EFNA3 | 0.31856562 | 0.268071 |
| EFNA4 | 1.38830745 | 1.178104 |
| EFNA5 | 0.44927605 | 0.528293 |
| EFNB1 | 0.27772878 | 0.279652 |
| EFNB2 | 7.33113692 | 6.150885 |
| EFNB3 | 0.00653163 | 0.01484 |
| EFR3A | 12.7921621 | 12.53529 |
| EFR3B | 0.25372483 | 0.249804 |
| EFS | 0 | 0 |
| EFTUD1 | 4.01107399 | 4.187186 |
| EFTUD2 | 34.144088 | 30.35077 |
| EGF | 0 | 0 |
| EGFL6 | 0.00882676 | 0.010027 |
| EGFL7 | 2.28893759 | 4.826847 |
| EGFL8 | 0.11597897 | 0.169398 |
| EGFLAM | 0.00783504 | 0 |
| EGFR | 0.00319972 | 0.003635 |
| EGLN1 | 7.37087915 | 6.888423 |
| EGLN2 | 65.541163 | 57.96653 |
| EGLN3 | 0.44800485 | 0.140397 |
| EGO | 0 | 0 |
| EGR1 | 0.17431716 | 0.228493 |
| EGR2 | 0.07349178 | 0.204925 |
| EGR3 | 1.55725225 | 1.945418 |
| EGR4 | 0.03793474 | 0.010774 |
| EHBP1 | 0.32099742 | 0.217905 |
| EHBP1L1 | 20.1404811 | 29.0679 |
| EHD1 | 239.562268 | 273.9015 |
| EHD2 | 0.02346577 | 0.033322 |
| EHD3 | 0.04107656 | 0.059996 |

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| EHD4 | 4.57580094 | 2.95144 |
| EHF | 0.00581292 | 0.006604 |
| EHHADH | 0.02765763 | 0.018852 |
| EHMT1 | 20.1354949 | 20.53493 |
| EHMT2 | 6.44854531 | 5.652247 |
| EI24 | 7.13243204 | 7.268003 |
| EID1 | 1.31722542 | 0.799597 |
| EID2 | 3.66773541 | 3.240693 |
| EID2B | 1.39793085 | 1.588072 |
| EID3 | 0 | 0 |
| EIF1 | 179.936241 | 160.7471 |
| EIF1AD | 13.0259191 | 13.38274 |
| EIF1AP1 | 0 | 0 |
| EIF1AX | 5.22904868 | 5.358113 |
| EIF1AY | 0 | 0 |
| EIF1B | 35.3815599 | 34.57676 |
| EIF2A | 1.36591477 | 1.539386 |
| EIF2AK1 | 23.1066739 | 23.62299 |
| EIF2AK2 | 4.82936783 | 4.638439 |
| EIF2AK3 | 6.16706058 | 4.758115 |
| EIF2AK4 | 2.23909094 | 1.928315 |
| EIF2B1 | 22.4551472 | 22.66023 |
| EIF2B2 | 4.91820607 | 4.454208 |
| EIF2B3 | 0.15208196 | 0.244754 |
| EIF2B4 | 11.5217927 | 9.737969 |
| EIF2B5 | 12.5513535 | 12.47828 |
| EIF2C1 | 36.9363162 | 57.98799 |
| EIF2C2 | 23.6924954 | 26.26876 |
| EIF2C3 | 5.62882876 | 6.878052 |
| EIF2C4 | 47.0750002 | 46.73108 |
| EIF2S1 | 3.18030216 | 2.918973 |
| EIF2S2 | 11.2589349 | 11.08557 |
| EIF2S2P | 0 | 0 |
| EIF2S2P2 | 0 | 0 |
| EIF2S3 | 21.6867339 | 23.0786 |
| EIF3A | 20.0979177 | 20.34624 |
| EIF3B | 13.321497 | 11.85736 |
| EIF3C | 22.9608023 | 20.9689 |
| EIF3CL | 0.61980995 | 0.844937 |
| EIF3D | 30.5293415 | 27.57388 |
| EIF3E | 12.6040446 | 10.29531 |
| EIF3EP | 0 | 0 |
| EIF3F | 31.236678 | 31.26363 |
| EIF3FP | 0 | 0 |
| EIF3G | 30.6704917 | 33.46459 |
| EIF3H | 35.6523651 | 38.60958 |
| EIF3I | 18.8189691 | 18.08584 |

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| EIF3IP1 | 0 | 0 |
| EIF3J | 14.4826557 | 15.46276 |
| EIF3K | 45.4233259 | 43.74861 |
| EIF3L | 31.8238719 | 29.69401 |
| EIF3LP1 | 0 | 0 |
| EIF3LP2 | 0 | 0 |
| EIF3M | 15.540462 | 15.44263 |
| EIF4A1 | 115.536702 | 121.0835 |
| EIF4A1P | 0 | 0 |
| EIF4A1P2 | 0 | 0 |
| EIF4A2 | 69.2579516 | 68.91441 |
| EIF4A3 | 21.3246239 | 23.63011 |
| EIF4B | 42.2385745 | 39.85398 |
| EIF4BP | 0 | 0 |
| EIF4E | 4.72235608 | 4.369459 |
| EIF4E1B | 0 | 0 |
| EIF4E2 | 26.8182368 | 27.86202 |
| EIF4E2P1 | 0 | 0 |
| EIF4E3 | 5.22591229 | 4.78357 |
| EIF4EBP1 | 17.1825173 | 18.43519 |
| EIF4EBP1P | 0 | 0 |
| EIF4EBP2 | 46.9670884 | 47.4372 |
| EIF4EBP2P | 0 | 0 |
| EIF4EBP3 | 0.30427396 | 0.449358 |
| EIF4ENIF1 | 5.3264968 | 5.155548 |
| EIF4EP1 | 0 | 0 |
| EIF4G1 | 19.2604699 | 18.99814 |
| EIF4G2 | 220.575129 | 219.8761 |
| EIF4G3 | 12.2973857 | 11.93289 |
| EIF4H | 94.6387639 | 96.52549 |
| EIF5 | 36.8583253 | 34.04355 |
| EIF5A | 41.2179755 | 41.13547 |
| EIF5A2 | 0.38352148 | 0.470196 |
| EIF5AL1 | 0.66251694 | 0.416745 |
| EIF5AL3 | 0 | 0 |
| EIF5AP1 | 0 | 0 |
| EIF5AP2 | 0 | 0 |
| EIF5AP3 | 0 | 0 |
| EIF5B | 9.36696843 | 8.88701 |
| EIF6 | 23.4044349 | 22.95606 |
| ELA2A | 0 | 0 |
| ELA2B | 0.31891076 | 0.439921 |
| ELAC1 | 0.42370797 | 0.352982 |
| ELAC2 | 5.02399899 | 4.056262 |
| ELANE | 0.02275469 | 0.077549 |
| ELAVL1 | 5.50795646 | 5.783997 |
| ELAVL2 | 0 | 0.006272 |

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|---------|------------|----------|
| ELAVL3 | 0.02245336 | 0.015304 |
| ELAVL4 | 0 | 0 |
| ELF1 | 87.683334 | 66.12962 |
| ELF2 | 23.1482205 | 25.53031 |
| ELF2P1 | 0 | 0 |
| ELF2P2 | 0 | 0 |
| ELF2P3 | 0 | 0 |
| ELF2P4 | 0 | 0 |
| ELF3 | 0.12946632 | 0.161783 |
| ELF4 | 83.7272777 | 121.9136 |
| ELF5 | 0 | 0.009337 |
| ELFN1 | 0.0241393 | 0.013711 |
| ELFN2 | 0.26404255 | 0.488501 |
| ELK1 | 3.30840827 | 2.47285 |
| ELK2P1 | 0 | 0 |
| ELK2P2 | 0 | 0 |
| ELK3 | 0.71355145 | 0.932752 |
| ELK4 | 5.57174125 | 4.714764 |
| ELL | 11.9657635 | 14.1356 |
| ELL2 | 16.6922905 | 17.42199 |
| ELL3 | 0.64678018 | 0.768664 |
| ELMO1 | 21.0566653 | 21.65441 |
| ELMO2 | 10.5954424 | 9.312793 |
| ELMO3 | 3.48190194 | 4.858794 |
| ELMOD1 | 0 | 0 |
| ELMOD2 | 6.16764739 | 5.379696 |
| ELMOD3 | 9.66689692 | 9.183612 |
| ELN | 0 | 0.006848 |
| ELOF1 | 25.9773226 | 30.3076 |
| ELOVL1 | 28.2275347 | 27.26736 |
| ELOVL2 | 0.31997313 | 0.246238 |
| ELOVL3 | 0 | 0.018191 |
| ELOVL4 | 0 | 0.015611 |
| ELOVL5 | 75.102624 | 66.55608 |
| ELOVL6 | 0.1115731 | 0.126749 |
| ELOVL7 | 0.1571076 | 0.252329 |
| ELP1P | 0 | 0 |
| ELP2 | 8.3713527 | 8.418208 |
| ELP2P | 0 | 0 |
| ELP3 | 3.38233585 | 3.085778 |
| ELP4 | 0.92581228 | 1.00601 |
| ELSPBP1 | 0 | 0 |
| ELTD1 | 0 | 0 |
| EMB | 46.4860358 | 54.58266 |
| EMCN | 0 | 0 |
| EMD | 22.5013437 | 20.63859 |
| EME1 | 0.14600924 | 0.041467 |

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| EME2 | 0.99220663 | 0.984031 |
| EMG1 | 2.72587704 | 1.867091 |
| EMID1 | 0.02041294 | 0.023189 |
| EMID2 | 0.06297104 | 0.079485 |
| EMILIN1 | 0.23923314 | 0.240889 |
| EMILIN2 | 0.73423456 | 0.595787 |
| EMILIN3 | 0.00549395 | 0 |
| EML1 | 0.00464956 | 0 |
| EML2 | 7.42620675 | 7.522534 |
| EML3 | 29.674461 | 32.85945 |
| EML4 | 31.6308277 | 30.70758 |
| EML5 | 0.21081747 | 0.195641 |
| EML6 | 0.11244924 | 0.103412 |
| EMP1 | 0.01499667 | 0.008518 |
| EMP2 | 0.00811632 | 0 |
| EMP3 | 135.358494 | 128.2996 |
| EMR1 | 315.258781 | 275.2485 |
| EMR2 | 114.957728 | 108.1726 |
| EMR3 | 127.897244 | 84.40236 |
| EMR4P | 0 | 0 |
| EMX1 | 0.0576563 | 0.098248 |
| EMX2 | 0.02904051 | 0.024743 |
| EMX2OS | 0 | 0 |
| EN1 | 0 | 0.024192 |
| EN2 | 0.01238606 | 0.014071 |
| ENAH | 0.00159621 | 0.001813 |
| ENAM | 0 | 0 |
| ENC1 | 6.72642906 | 10.39914 |
| ENDOD1 | 0.4431145 | 0.22601 |
| ENDOG | 3.15839033 | 3.212495 |
| ENG | 18.3609821 | 25.42464 |
| ENGASE | 5.30550111 | 5.138756 |
| ENHO | 0 | 0.088627 |
| ENKUR | 0.00633675 | 0 |
| ENO1 | 81.0728407 | 89.91188 |
| ENO1P | 0 | 0 |
| ENO2 | 0.33841845 | 0.552029 |
| ENO3 | 3.78262684 | 8.311955 |
| ENOPH1 | 1.85824673 | 1.968683 |
| ENOSF1 | 3.92096255 | 2.840544 |
| ENOX1 | 0.00674105 | 0.015316 |
| ENOX2 | 1.32162095 | 1.170279 |
| ENPEP | 0.08839478 | 0.114763 |
| ENPP1 | 0.01412613 | 0.00321 |
| ENPP2 | 2.64149935 | 1.831833 |
| ENPP3 | 0.0265723 | 0.04528 |
| ENPP4 | 0.30549626 | 0.280701 |

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| ENPP5 | 0 | 0 |
| ENPP6 | 0 | 0 |
| ENPP7 | 0.0114144 | 0 |
| ENSA | 38.0383491 | 33.24323 |
| ENSAP | 0 | 0 |
| ENSAP2 | 0 | 0 |
| ENTHD1 | 0 | 0 |
| ENTPD1 | 27.9435115 | 25.45287 |
| ENTPD2 | 2.73329302 | 3.685131 |
| ENTPD3 | 0.00752787 | 0.008552 |
| ENTPD4 | 22.1363685 | 18.86844 |
| ENTPD5 | 6.72565278 | 5.051056 |
| ENTPD6 | 3.12867886 | 2.862408 |
| ENTPD7 | 2.93445297 | 2.484833 |
| ENTPD8 | 0.00946235 | 0 |
| ENY2 | 40.8312666 | 36.89809 |
| EOMES | 0.08397917 | 0.078056 |
| EP300 | 43.5553854 | 43.21185 |
| EP400 | 9.21926049 | 10.83934 |
| EP400NL | 0 | 0 |
| EPAS1 | 9.93158393 | 9.520573 |
| EPB41 | 84.9167198 | 123.052 |
| EPB41L1 | 0.00664203 | 0.007545 |
| EPB41L2 | 0.24929363 | 0.224424 |
| EPB41L3 | 0.07093566 | 0.085956 |
| EPB41L4A | 0.10720373 | 0.106562 |
| EPB41L4B | 0.01098359 | 0.009358 |
| EPB41L5 | 0.28612453 | 0.317738 |
| EPB42 | 0.0248233 | 0 |
| EPB49 | 0.05125005 | 0.065498 |
| EPC1 | 22.1440836 | 19.65417 |
| EPC2 | 14.6848164 | 13.21192 |
| EPCAM | 0.09790608 | 0.19464 |
| EPDR1 | 0 | 0 |
| EPF5 | 0 | 0 |
| EPF8 | 0 | 0 |
| EPGN | 0.0248233 | 0 |
| EPHA1 | 0.28133806 | 0.369321 |
| EPHA10 | 0.00949368 | 0.00719 |
| EPHA2 | 0 | 0.024212 |
| EPHA3 | 0.009451 | 0.010736 |
| EPHA4 | 0.11923628 | 0.090303 |
| EPHA5 | 0.00267566 | 0 |
| EPHA6 | 0 | 0 |
| EPHA7 | 0 | 0 |
| EPHA8 | 0.00777133 | 0.013243 |
| EPHB1 | 0.05121316 | 0.015867 |

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| EPHB2 | 0 | 0 |
| EPHB3 | 0.00996461 | 0.01132 |
| EPHB4 | 0.01932919 | 0.032937 |
| EPHB6 | 2.92784104 | 3.243365 |
| EPHX1 | 1.60885656 | 1.614874 |
| EPHX2 | 0.00957438 | 0.010877 |
| EPHX3 | 0.01084898 | 0.012325 |
| EPHX4 | 0 | 0 |
| EPM2A | 0.24271666 | 0.23437 |
| EPM2AIP1 | 7.72162981 | 7.477943 |
| EPN1 | 22.1400666 | 25.69315 |
| EPN2 | 29.1441092 | 21.95849 |
| EPN3 | 0.00535404 | 0.012165 |
| EPO | 0.04742556 | 0.017959 |
| EPOR | 7.67970693 | 15.67783 |
| EPPK1 | 0.02889683 | 0.006565 |
| EPR1 | 0 | 0 |
| EPRS | 3.1988689 | 2.848115 |
| EPS15 | 15.9865016 | 16.8477 |
| EPS15L1 | 27.2328818 | 22.15443 |
| EPS15L2 | 0 | 0 |
| EPS8 | 0.05150743 | 0.070216 |
| EPS8L1 | 0.49200043 | 0.410457 |
| EPS8L2 | 1.37223586 | 1.52086 |
| EPS8L3 | 0.01876424 | 0.021316 |
| EPSTI1 | 11.1342026 | 12.99787 |
| EPX | 1.67479263 | 1.813267 |
| EPYC | 0 | 0 |
| ERAF | 0.04155204 | 0 |
| ERAL1 | 1.84331669 | 1.989335 |
| ERAP1 | 15.4495835 | 16.70112 |
| ERAP2 | 2.53441874 | 1.766936 |
| ERAS | 0.03321537 | 0.0566 |
| ERBB2 | 0.21734787 | 0.181689 |
| ERBB2IP | 23.4209297 | 25.6499 |
| ERBB3 | 0.0070709 | 0.004016 |
| ERBB4 | 0 | 0.002003 |
| ERC1 | 1.73565801 | 1.593456 |
| ERC2 | 0 | 0 |
| ERCC1 | 4.79941198 | 5.705799 |
| ERCC2 | 0.25021881 | 0.276357 |
| ERCC3 | 8.830639 | 7.782203 |
| ERCC4 | 0.63750819 | 0.533449 |
| ERCC5 | 39.1658387 | 36.52159 |
| ERCC6 | 10.2965901 | 8.778783 |
| ERCC6L | 0.10994944 | 0.096517 |
| ERCC8 | 0.19544094 | 0.245395 |

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| EREG | 0.94950177 | 0.438685 |
| ERF | 21.0097854 | 22.62242 |
| ERG | 0.00800812 | 0.009097 |
| ERGIC1 | 85.9632401 | 83.30501 |
| ERGIC2 | 8.69646497 | 8.804022 |
| ERGIC3 | 16.1614916 | 16.19152 |
| ERH | 29.5299592 | 28.05979 |
| ERI1 | 4.69709994 | 6.572934 |
| ERI2 | 2.22397725 | 2.248277 |
| ERI3 | 1.25452348 | 1.109979 |
| ERICH1 | 4.4737232 | 3.901235 |
| ERLIN1 | 8.94427975 | 6.027274 |
| ERLIN2 | 7.55581762 | 6.028722 |
| ERMAP | 2.07850415 | 1.835741 |
| ERMN | 14.2429661 | 13.26209 |
| ERMP1 | 2.07851989 | 1.560738 |
| ERN1 | 2.79812769 | 2.797033 |
| ERN2 | 0.011613 | 0.013193 |
| ERO1L | 30.3120481 | 29.13117 |
| ERO1LB | 10.0867641 | 9.152464 |
| ERP27 | 8.80161967 | 9.361221 |
| ERP28P | 0 | 0 |
| ERP29 | 35.4231119 | 29.66167 |
| ERP44 | 13.6305724 | 13.06754 |
| ERRFI1 | 7.82822326 | 9.816635 |
| ERV3 (NC_00000 | 0.38388947 | 0.167733 |
| ERV3 (NC_00000 | 3.96872631 | 3.486939 |
| ERVWE1 | 0.13814278 | 0.109853 |
| ESAM | 0.02249902 | 0.025559 |
| ESCO1 | 8.00542164 | 8.584624 |
| ESCO2 | 0.15648505 | 0.120883 |
| ESD | 6.12062906 | 4.54859 |
| ESF1 | 1.05911182 | 1.114044 |
| ESM1 | 0 | 0 |
| ESP33 | 0 | 0 |
| ESPL1 | 0.22222153 | 0.281298 |
| ESPN | 0.03572699 | 0.033822 |
| ESPNL | 0 | 0.0051 |
| ESPNP | 0 | 0 |
| ESR1 | 0.04223771 | 0.054837 |
| ESR2 | 0.4323658 | 0.442057 |
| ESRP1 | 0 | 0.006276 |
| ESRP2 | 3.84322762 | 4.152124 |
| ESRRA | 27.5856886 | 29.93973 |
| ESRRAP1 | 0 | 0 |
| ESRRAP2 | 0 | 0 |
| ESRRB | 0.00958747 | 0.010892 |

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| ESRRG | 0.0036332 | 0 |
| ESSPL | 0 | 0.0242 |
| ESX1 | 0 | 0 |
| ETAA1 | 2.27352802 | 1.942529 |
| ETF1 | 33.4102711 | 34.43884 |
| ETF1P1 | 0 | 0 |
| ETF1P2 | 0 | 0 |
| ETF1P3 | 0 | 0 |
| ETFA | 12.1341762 | 11.40492 |
| ETFB | 2.62454131 | 2.289676 |
| ETFDH | 6.74887167 | 5.877221 |
| ETHE1 | 0.45849631 | 0.372042 |
| ETNK1 | 5.04769101 | 4.459251 |
| ETNK2 | 0.04027841 | 0.018303 |
| ETS1 | 45.2342484 | 38.20497 |
| ETS2 | 2.17009816 | 3.571058 |
| ETV1 | 0 | 0.003879 |
| ETV2 | 0.02827886 | 0.016063 |
| ETV3 | 4.85807135 | 4.654743 |
| ETV3L | 0.01064035 | 0 |
| ETV4 | 0.05961009 | 0.067718 |
| ETV5 | 0.09738695 | 0.122279 |
| ETV6 | 31.2659204 | 30.72082 |
| ETV7 | 0.05172283 | 0.088137 |
| EVC | 0.01307952 | 0 |
| EVC2 | 0.00954395 | 0.010842 |
| EVI1 | 0.00714783 | 0.00406 |
| EVI2A | 0.93282262 | 0.209152 |
| EVI2B | 138.914731 | 83.01722 |
| EVI5 | 3.87390942 | 4.239502 |
| EVI5L | 0.98617875 | 0.985877 |
| EVL | 58.7841772 | 52.98293 |
| EVPL | 0.03191943 | 0.014504 |
| EVPLL | 0.01055489 | 0.035972 |
| EVX1 | 0.01131611 | 0 |
| EVX2 | 0.03900804 | 0.029542 |
| EWSR1 | 55.2431824 | 51.01332 |
| EXD1 | 0 | 0 |
| EXD2 | 0.88379173 | 0.767766 |
| EXD3 | 1.99233438 | 2.395972 |
| EXO1 | 0.03909265 | 0.022205 |
| EXOC1 | 10.6124507 | 9.668735 |
| EXOC2 | 5.59949719 | 5.463141 |
| EXOC3 | 121.755227 | 109.3928 |
| EXOC3L | 0.06736189 | 0.076524 |
| EXOC3L2 | 0.01223114 | 0.02779 |
| EXOC4 | 4.79364015 | 4.962569 |

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| EXOC5 | 6.10922847 | 5.217062 |
| EXOC6 | 4.71548821 | 3.923251 |
| EXOC6B | 0.20263426 | 0.377521 |
| EXOC7 | 18.1892987 | 16.91316 |
| EXOC8 | 14.3510156 | 12.84932 |
| EXOG | 0.41435808 | 0.311281 |
| EXOSC1 | 11.3353958 | 10.84176 |
| EXOSC10 | 13.6724552 | 12.46993 |
| EXOSC2 | 3.87157416 | 3.222421 |
| EXOSC3 | 6.50374395 | 5.902867 |
| EXOSC3P1 | 0 | 0 |
| EXOSC3P2 | 0 | 0 |
| EXOSC4 | 3.59427445 | 5.337455 |
| EXOSC5 | 0.08460898 | 0.048059 |
| EXOSC6 | 5.36764332 | 5.015873 |
| EXOSC7 | 1.03503077 | 0.806929 |
| EXOSC8 | 7.45050707 | 6.551054 |
| EXOSC9 | 7.92926107 | 6.784882 |
| EXPH5 | 0.01188096 | 0.013497 |
| EXT1 | 0.33760567 | 0.326707 |
| EXT2 | 19.0377238 | 16.19672 |
| EXTL1 | 0 | 0.011898 |
| EXTL2 | 0.31315872 | 0.239927 |
| EXTL3 | 3.99930955 | 3.660939 |
| EYA1 | 0.01844732 | 0.010478 |
| EYA2 | 0.01354725 | 0 |
| EYA3 | 6.55949201 | 6.225312 |
| EYA4 | 0.00362881 | 0.008245 |
| EYS | 0.02893324 | 0.038058 |
| EZH1 | 27.388141 | 24.1473 |
| EZH2 | 3.83702502 | 4.020882 |
| EZR | 30.5341773 | 28.54186 |
| F10 | 0 | 0 |
| F11 | 0.00641407 | 0.014573 |
| F11R | 112.05239 | 107.9033 |
| F12 | 4.08000084 | 4.506844 |
| F13A1 | 0.05442747 | 0.074197 |
| F13B | 0 | 0 |
| F2 | 0.01046036 | 0.011883 |
| F2R | 0.09381381 | 0.087767 |
| F2RL1 | 1.516916 | 1.267576 |
| F2RL2 | 0 | 0 |
| F2RL3 | 0.03079507 | 0 |
| F3 | 0.00894314 | 0.020319 |
| F5 | 10.8207499 | 7.720571 |
| F7 | 0 | 0 |
| F8 | 0.12791076 | 0.12455 |

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| F8A1 | 1.39592385 | 1.50159 |
| F8A2 | 1.45067248 | 1.819206 |
| F8A3 | 1.05503453 | 1.605182 |
| F9 | 0 | 0 |
| FA2H | 0 | 0.019723 |
| FAAH | 11.4710994 | 9.474237 |
| FAAH2 | 0 | 0 |
| FABP1 | 0 | 0 |
| FABP12 | 0 | 0 |
| FABP2 | 0 | 0 |
| FABP3 | 0.53665384 | 0.479009 |
| FABP3P2 | 0 | 0 |
| FABP4 | 0 | 0 |
| FABP5 | 0 | 0 |
| FABP5L1 | 0 | 0 |
| FABP5L10 | 0 | 0 |
| FABP5L11 | 0 | 0 |
| FABP5L12 | 0 | 0 |
| FABP5L2 | 0 | 0 |
| FABP5L3 | 0 | 0 |
| FABP5L6 | 0 | 0 |
| FABP5L7 | 0 | 0 |
| FABP5L8 | 0 | 0 |
| FABP5L9 | 0 | 0 |
| FABP6 | 0.14550402 | 0.082647 |
| FABP7 | 0.02102533 | 0 |
| FABP9 | 0 | 0.059862 |
| FADD | 8.99788853 | 9.487016 |
| FADS1 | 6.98783058 | 6.976397 |
| FADS2 | 9.42100412 | 9.701192 |
| FADS3 | 21.4035269 | 21.01191 |
| FADS6 | 0.01024626 | 0 |
| FAF1 | 5.64908234 | 4.873191 |
| FAF2 | 7.50671839 | 7.53849 |
| FAH | 30.3828383 | 32.35302 |
| FAHD1 | 0.45125301 | 0.330169 |
| FAHD2A | 1.16627414 | 0.864869 |
| FAHD2B | 0.18282896 | 0.226578 |
| FAHD2P | 0 | 0 |
| FAIM | 0.18987355 | 0.215699 |
| FAIM2 | 0.01341186 | 0 |
| FAIM3 | 0.24409703 | 0.194858 |
| FAM100A | 27.8652548 | 27.83781 |
| FAM100B | 37.9884992 | 40.19433 |
| FAM101A | 0 | 0 |
| FAM101B | 220.635401 | 101.3749 |
| FAM102A | 131.645043 | 164.0994 |

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| FAM102B | 7.61872948 | 10.73935 |
| FAM103A1 | 5.15542583 | 5.502329 |
| FAM103A2P | 0 | 0 |
| FAM104A | 14.7716054 | 14.47332 |
| FAM104B | 0.60187016 | 0.433032 |
| FAM105A | 0.13122192 | 0.274425 |
| FAM105B | 13.2792965 | 12.98314 |
| FAM106A | 0 | 0 |
| FAM107A | 0.00606792 | 0.013786 |
| FAM107B | 42.3228525 | 30.76983 |
| FAM108A1 | 58.4445389 | 82.70706 |
| FAM108A2 | 0 | 0 |
| FAM108A5 | 0.16139472 | 0.366694 |
| FAM108B1 | 6.97189655 | 5.89801 |
| FAM108C1 | 0.04454519 | 0.050604 |
| FAM109A | 0.44862967 | 0.517257 |
| FAM109B | 0.6671846 | 0.522359 |
| FAM10A3 | 0 | 0 |
| FAM10A4 | 0 | 0 |
| FAM10A5 | 0 | 0 |
| FAM10A6 | 0 | 0 |
| FAM10A7 | 0 | 0 |
| FAM110A | 22.358538 | 13.77987 |
| FAM110B | 23.3358069 | 26.05052 |
| FAM110C | 0 | 0 |
| FAM111A | 9.11524369 | 7.428499 |
| FAM111B | 0.035426 | 0.02683 |
| FAM113A | 4.54374336 | 4.205882 |
| FAM113B | 0.12159228 | 0.241729 |
| FAM114A1 | 0.09926974 | 0.214267 |
| FAM114A2 | 5.84279814 | 5.652644 |
| FAM115A | 1.176098 | 0.97861 |
| FAM115B | 0 | 0 |
| FAM115C | 0.63860365 | 0.66238 |
| FAM115D | 0 | 0 |
| FAM116A | 8.36409151 | 9.527379 |
| FAM116B | 0.59742964 | 0.738224 |
| FAM117A | 23.5544263 | 15.31641 |
| FAM117B | 1.25082053 | 1.285415 |
| FAM118A | 9.43139846 | 10.1178 |
| FAM118B | 2.83217928 | 2.426683 |
| FAM119A | 6.31697038 | 4.335709 |
| FAM119B | 0.051823 | 0.025231 |
| FAM120A | 24.4779473 | 26.12088 |
| FAM120AOS | 8.95762744 | 9.09621 |
| FAM120B | 10.749598 | 9.682355 |
| FAM120C | 0.12745778 | 0.067965 |

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| FAM122A | 0 | 0 |
| FAM122B | 8.82051986 | 8.698267 |
| FAM122C | 3.14045272 | 2.568675 |
| FAM123A | 0 | 0.014938 |
| FAM123B | 0.27890999 | 0.200858 |
| FAM123C | 0.00324766 | 0 |
| FAM124A | 0 | 0.011352 |
| FAM124B | 6.38703192 | 5.119553 |
| FAM125A | 3.87726137 | 3.163325 |
| FAM125B | 0.12452076 | 0.265233 |
| FAM126A | 6.20060972 | 4.686933 |
| FAM126B | 4.99895097 | 4.918802 |
| FAM127A | 8.23097764 | 7.776101 |
| FAM127B | 4.02151172 | 2.559119 |
| FAM127C | 0 | 0 |
| FAM128A | 28.2158121 | 27.19387 |
| FAM128B | 47.6880968 | 48.55441 |
| FAM129A | 56.2668942 | 56.07104 |
| FAM129B | 0.06280905 | 0.154596 |
| FAM129C | 0.55068164 | 0.590828 |
| FAM12A | 0 | 0 |
| FAM12B | 0.02346577 | 0 |
| FAM12CP | 0 | 0 |
| FAM131A | 6.70729215 | 5.872216 |
| FAM131B | 0.09466606 | 0.161313 |
| FAM131C | 0 | 0 |
| FAM132A | 1.86711433 | 1.89052 |
| FAM132B | 0 | 0 |
| FAM133A | 0 | 0 |
| FAM133B | 1.58456708 | 1.558145 |
| FAM134A | 22.4835247 | 22.13022 |
| FAM134B | 0.36999884 | 0.386965 |
| FAM134C | 34.698144 | 34.1816 |
| FAM135A | 0.14482749 | 0.189205 |
| FAM135B | 0.00906004 | 0 |
| FAM136A | 8.91278557 | 7.86477 |
| FAM136B | 0 | 0 |
| FAM138A | 0 | 0 |
| FAM138B | 0 | 0 |
| FAM138C | 0 | 0 |
| FAM138D | 0 | 0 |
| FAM138E | 0 | 0 |
| FAM138F | 0 | 0 |
| FAM13A | 1.14141428 | 1.413481 |
| FAM13AOS | 0 | 0 |
| FAM13B | 19.5972235 | 17.23856 |
| FAM13C | 0 | 0 |

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| FAM148A | 0.00610314 | 0.006933 |
| FAM148B | 0.98723001 | 2.000529 |
| FAM148C | 0.01346052 | 0.007646 |
| FAM149A | 0 | 0.008833 |
| FAM149B1 | 2.59795756 | 2.775919 |
| FAM150A | 0 | 0 |
| FAM150B | 0.01503958 | 0.017085 |
| FAM151A | 0.01061349 | 0.012057 |
| FAM151B | 3.14898678 | 2.561908 |
| FAM153A | 0.02343961 | 0 |
| FAM153B | 0 | 0 |
| FAM153C | 0 | 0 |
| FAM154A | 0.01130394 | 0 |
| FAM154B | 0.02014564 | 0.030514 |
| FAM155A | 0.00603829 | 0 |
| FAM155B | 0 | 0 |
| FAM156A | 1.65325792 | 1.878127 |
| FAM156B | 0.06180285 | 0.014042 |
| FAM157A | 9.482012 | 9.909979 |
| FAM157B | 0.06580698 | 0.186894 |
| FAM157C | 12.1545037 | 12.1931 |
| FAM158A | 2.94606434 | 3.375381 |
| FAM159A | 29.3390721 | 42.46622 |
| FAM159B | 0.1033529 | 0.111064 |
| FAM160A1 | 0.03675757 | 0.036538 |
| FAM160A2 | 9.69983052 | 8.105342 |
| FAM160B1 | 5.86506874 | 5.881922 |
| FAM160B2 | 4.20281267 | 5.721674 |
| FAM161A | 0.07403286 | 0.045286 |
| FAM161B | 0.80305084 | 0.787877 |
| FAM162A | 5.51977662 | 6.555579 |
| FAM162B | 0 | 0 |
| FAM163A | 0.01445537 | 0 |
| FAM163B | 0 | 0.047675 |
| FAM164A | 0.05017979 | 0.042754 |
| FAM164B | 0 | 0 |
| FAM164C | 0.06076685 | 0.092043 |
| FAM165B | 3.41077591 | 2.919291 |
| FAM166A | 0.01870581 | 0.02125 |
| FAM166B | 0 | 0.026867 |
| FAM167A | 0.0256845 | 0 |
| FAM167B | 0.10996512 | 0.049969 |
| FAM168A | 11.2444469 | 16.34244 |
| FAM168B | 26.8281045 | 26.23121 |
| FAM169A | 0.02476899 | 0.028138 |
| FAM169B | 0.00637518 | 0 |
| FAM170A | 0 | 0.017878 |

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| FAM170B | 0.13279156 | 0.167615 |
| FAM171A1 | 0.00532017 | 0.012088 |
| FAM171A2 | 0.03192913 | 0.099748 |
| FAM171B | 0 | 0.01343 |
| FAM172A | 4.10285637 | 3.833886 |
| FAM172B | 0 | 0 |
| FAM173A | 4.16585812 | 4.537614 |
| FAM173B | 0.86561493 | 0.957475 |
| FAM174A | 2.22841291 | 2.087048 |
| FAM174B | 0.11192191 | 0.063573 |
| FAM175A | 2.0988118 | 2.198276 |
| FAM175B | 6.43202201 | 6.117016 |
| FAM176A | 0.01000254 | 0 |
| FAM176B | 0.19948132 | 0.271937 |
| FAM177A1 | 5.29860887 | 6.994061 |
| FAM177B | 0.01563222 | 0.017758 |
| FAM178A | 5.15946807 | 4.32068 |
| FAM178B | 0.01467225 | 0.008334 |
| FAM179A | 1.1140818 | 1.029995 |
| FAM179B | 1.87954737 | 1.649228 |
| FAM180A | 0 | 0 |
| FAM180B | 0 | 0.016645 |
| FAM181A | 0.02328387 | 0.039676 |
| FAM181B | 0.0338936 | 0 |
| FAM182A | 0 | 0 |
| FAM182B | 0 | 0 |
| FAM183A | 0 | 0 |
| FAM183B | 0.11489252 | 0.029004 |
| FAM184A | 0.02021666 | 0.011483 |
| FAM184B | 1.6198504 | 1.369289 |
| FAM185A | 1.09875512 | 0.729882 |
| FAM185B | 0 | 0 |
| FAM186A | 0 | 0 |
| FAM186B | 0.01462123 | 0.008305 |
| FAM187B | 0 | 0 |
| FAM18A | 0.05667205 | 0.04292 |
| FAM18B | 5.3121574 | 4.979959 |
| FAM18B2 | 1.9018294 | 1.760584 |
| FAM197Y1 | 0.03915332 | 0.022239 |
| FAM197Y10 | 0 | 0.056466 |
| FAM197Y2P | 0 | 0 |
| FAM197Y3 | 0 | 0 |
| FAM197Y4 | 0 | 0 |
| FAM197Y5 | 0 | 0 |
| FAM197Y6 | 0 | 0 |
| FAM197Y7 | 0 | 0 |
| FAM197Y8 | 0 | 0 |

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| FAM197Y9 | 0 | 0 |
| FAM199YP | 0 | 0 |
| FAM19A1 | 0 | 0 |
| FAM19A2 | 0.29029057 | 0.288553 |
| FAM19A3 | 0 | 0 |
| FAM19A4 | 0 | 0 |
| FAM19A5 | 0.02933426 | 0 |
| FAM201C | 0 | 0 |
| FAM202B | 0 | 0 |
| FAM202C | 0 | 0 |
| FAM20A | 0.96454981 | 1.190568 |
| FAM20B | 3.50422183 | 3.117196 |
| FAM20C | 0.25221226 | 0.173647 |
| FAM21A | 4.84680682 | 4.800539 |
| FAM21B | 3.7180717 | 3.257562 |
| FAM21C | 17.2480529 | 14.38793 |
| FAM21D | 0.04207871 | 0.015934 |
| FAM22A | 0.85635087 | 0.79133 |
| FAM22B | 2.1903419 | 2.172381 |
| FAM22D | 0.53862475 | 0.715304 |
| FAM22E | 0.60244501 | 0.342194 |
| FAM22F | 0.01641963 | 0.046632 |
| FAM22G | 0.2623865 | 0.288302 |
| FAM23A | 0.02693582 | 0.104913 |
| FAM24A | 0 | 0 |
| FAM24B | 1.22556981 | 0.773482 |
| FAM25A | 0 | 0 |
| FAM25B | 0 | 0 |
| FAM25C | 0 | 0 |
| FAM25G | 0 | 0 |
| FAM26D | 0 | 0 |
| FAM26E | 0 | 0 |
| FAM26F | 5.23263422 | 3.532153 |
| FAM27A | 0 | 0 |
| FAM27B | 0 | 0 |
| FAM27E3 | 0 | 0.139679 |
| FAM27L | 0.03429907 | 0 |
| FAM32A | 68.7785154 | 65.25959 |
| FAM32B | 0 | 0 |
| FAM32D | 0 | 0 |
| FAM32E | 0 | 0 |
| FAM33A | 1.89742421 | 1.738065 |
| FAM35A | 2.06300251 | 1.985748 |
| FAM35A2 | 0 | 0 |
| FAM35B | 0 | 0 |
| FAM35B2 | 0 | 0 |
| FAM36A | 13.4462457 | 11.83299 |

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| FAM38A | 32.1582359 | 42.56865 |
| FAM38B | 0 | 0 |
| FAM3A | 5.48543815 | 5.309455 |
| FAM3B | 0.04557514 | 0.017258 |
| FAM3C | 0.83538884 | 1.052373 |
| FAM3C2 | 0 | 0 |
| FAM3D | 0 | 0 |
| FAM40A | 19.2914824 | 17.44155 |
| FAM40B | 0.19918735 | 0.138282 |
| FAM41AY1 | 0 | 0 |
| FAM41AY2 | 0 | 0 |
| FAM41C | 0 | 0 |
| FAM43A | 7.63463528 | 18.27268 |
| FAM43B | 0 | 0.009251 |
| FAM45A | 14.2513586 | 11.09968 |
| FAM45B | 0 | 0 |
| FAM46A | 13.0303102 | 10.3976 |
| FAM46B | 1.133632 | 1.992103 |
| FAM46C | 7.08685981 | 7.55805 |
| FAM46D | 0 | 0 |
| FAM47A | 0 | 0 |
| FAM47B | 0 | 0 |
| FAM47C | 0 | 0 |
| FAM47DP | 0 | 0 |
| FAM47E | 0 | 0.01541 |
| FAM48A | 16.3761654 | 16.3885 |
| FAM48B1 | 0 | 0.017932 |
| FAM48B2 | 0.01713556 | 0.038933 |
| FAM49A | 18.6762135 | 13.21057 |
| FAM49B | 113.197854 | 122.8517 |
| FAM50A | 26.9913288 | 29.13218 |
| FAM50B | 0.23390356 | 0.339529 |
| FAM53A | 0.0080066 | 0.054574 |
| FAM53B | 17.9631051 | 23.18187 |
| FAM53C | 13.529033 | 9.666575 |
| FAM54A | 0.2814322 | 0.30639 |
| FAM54B | 41.5606833 | 35.86245 |
| FAM55A | 0 | 0.025302 |
| FAM55B | 0 | 0 |
| FAM55C | 3.87155934 | 3.801883 |
| FAM55D | 0 | 0.011043 |
| FAM57A | 1.07148321 | 1.159806 |
| FAM57B | 0 | 0 |
| FAM58A | 5.30530478 | 4.598996 |
| FAM58AP1 | 0 | 0 |
| FAM58B | 0 | 0 |
| FAM59A | 0.02064681 | 0 |

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| FAM59B | 0 | 0 |
| FAM5B | 0 | 0 |
| FAM5C | 0 | 0 |
| FAM60A | 5.63915621 | 6.1112 |
| FAM62A | 163.528113 | 128.856 |
| FAM62B | 21.7100572 | 22.46171 |
| FAM62C | 0.01418394 | 0 |
| FAM63A | 18.2633827 | 12.39359 |
| FAM63B | 2.03416827 | 1.529447 |
| FAM64A | 0.05671027 | 0.016106 |
| FAM65A | 16.4999772 | 28.38631 |
| FAM65B | 11.4836735 | 7.133905 |
| FAM65C | 0.05890824 | 0.01673 |
| FAM66A | 0 | 0 |
| FAM66C | 0 | 0 |
| FAM66D | 0 | 0 |
| FAM66E | 0 | 0 |
| FAM69A | 0.15370577 | 0.303274 |
| FAM69B | 0.85531097 | 1.682254 |
| FAM70A | 0.03607435 | 0.034151 |
| FAM70B | 0.75454631 | 0.579173 |
| FAM71A | 0.01826701 | 0.010376 |
| FAM71B | 0 | 0 |
| FAM71C | 0 | 0 |
| FAM71D | 0 | 0.040853 |
| FAM71E1 | 0 | 0 |
| FAM71E2 | 0.02642203 | 0 |
| FAM71F1 | 0 | 0 |
| FAM71F2 | 0.40365827 | 0.319 |
| FAM72A | 0.02252312 | 0.025587 |
| FAM72B | 0 | 0 |
| FAM72D | 0.00878618 | 0.019962 |
| FAM73A | 3.7301072 | 3.583448 |
| FAM73B | 12.9246877 | 13.82367 |
| FAM74A1 | 0 | 0 |
| FAM74A2 | 0 | 0 |
| FAM74A3 | 0 | 0 |
| FAM74A4 | 0 | 0 |
| FAM74A5 | 0 | 0 |
| FAM74A6 | 0 | 0 |
| FAM74A7 | 0 | 0 |
| FAM75A1 | 0 | 0 |
| FAM75A2 | 0 | 0 |
| FAM75A3 | 0 | 0 |
| FAM75A4 | 0.00490444 | 0 |
| FAM75A5 | 0 | 0 |
| FAM75A6 | 0.0049894 | 0 |

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| FAM75A7 | 0 | 0 |
| FAM75B | 0 | 0 |
| FAM75C1 | 0 | 0 |
| FAM76A | 4.45771026 | 5.719456 |
| FAM76B | 14.8896168 | 13.61409 |
| FAM78A | 27.8788624 | 47.81877 |
| FAM78B | 0.01315728 | 0.014947 |
| FAM7A1 | 0 | 0 |
| FAM7A3 | 0 | 0 |
| FAM81A | 0.00606267 | 0 |
| FAM81B | 0.01345191 | 0 |
| FAM82A1 | 0.32835529 | 0.721968 |
| FAM82A2 | 2.91421735 | 3.353041 |
| FAM82B | 6.58070901 | 5.402213 |
| FAM83A | 0.00584687 | 0.013284 |
| FAM83B | 0 | 0 |
| FAM83C | 0.00664098 | 0.015089 |
| FAM83D | 0.32892654 | 0.521165 |
| FAM83E | 0.02091032 | 0 |
| FAM83F | 0.02030452 | 0.011533 |
| FAM83G | 0.05023117 | 0.024456 |
| FAM83H | 0.05268563 | 0.106878 |
| FAM84A | 0 | 0 |
| FAM84B | 0.20494875 | 0.251086 |
| FAM86A | 0.1328475 | 0.140856 |
| FAM86B1 | 0.05174405 | 0.039188 |
| FAM86B2 | 0.09948895 | 0.037674 |
| FAM86C | 0.05755109 | 0.021793 |
| FAM86D | 0 | 0 |
| FAM87A | 0 | 0 |
| FAM89A | 0.21053402 | 0.271059 |
| FAM89B | 20.462925 | 30.38881 |
| FAM8A1 | 15.774537 | 14.33107 |
| FAM8A10P | 0 | 0 |
| FAM8A2P | 0 | 0 |
| FAM8A3P | 0 | 0 |
| FAM8A6P | 0 | 0 |
| FAM8A7P | 0 | 0 |
| FAM8A8P | 0 | 0 |
| FAM8A9P | 0 | 0 |
| FAM90A1 | 0.0501399 | 0.018987 |
| FAM90A10 | 0 | 0 |
| FAM90A11 | 0 | 0 |
| FAM90A12 | 0 | 0 |
| FAM90A13 | 0 | 0 |
| FAM90A14 | 0 | 0 |
| FAM90A15 | 0 | 0 |

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| FAM90A16 | 0 | 0 |
| FAM90A17 | 0 | 0 |
| FAM90A18 | 0 | 0 |
| FAM90A19 | 0 | 0 |
| FAM90A20 | 0 | 0 |
| FAM90A21P | 0 | 0 |
| FAM90A22 | 0 | 0 |
| FAM90A23 | 0 | 0 |
| FAM90A24P | 0 | 0 |
| FAM90A25P | 0 | 0 |
| FAM90A2P | 0 | 0 |
| FAM90A3 | 0 | 0 |
| FAM90A4P | 0 | 0 |
| FAM90A5 | 0 | 0 |
| FAM90A6P | 0 | 0 |
| FAM90A7 | 0 | 0 |
| FAM90A8 | 0 | 0 |
| FAM90A9 | 0 | 0 |
| FAM91A1 | 30.8432052 | 26.63418 |
| FAM91A3P | 0 | 0 |
| FAM92A1 | 0.43100055 | 0.489623 |
| FAM92A2 | 0 | 0 |
| FAM92A3 | 0 | 0 |
| FAM92B | 0 | 0 |
| FAM95B1 | 0 | 0 |
| FAM96A | 12.2647764 | 9.033471 |
| FAM96B | 32.2206371 | 31.15749 |
| FAM98A | 2.77273946 | 1.792471 |
| FAM98B | 2.79271511 | 2.389909 |
| FAM98C | 8.83888423 | 7.530834 |
| FAM99A | 0 | 0 |
| FAM99B | 0 | 0 |
| FAM9A | 0 | 0 |
| FAM9B | 0.0395213 | 0 |
| FAM9C | 0.33285484 | 0.546185 |
| FANCA | 3.46963883 | 4.347314 |
| FANCB | 0.15377569 | 0.134989 |
| FANCC | 0.2472491 | 0.260073 |
| FANCD2 | 6.69260997 | 6.108837 |
| FANCE | 0.46905826 | 0.373935 |
| FANCF | 2.05869061 | 2.273741 |
| FANCG | 1.66220784 | 1.343594 |
| FANCI | 2.79806468 | 2.484574 |
| FANCL | 3.93314505 | 3.433829 |
| FANCM | 1.13267776 | 0.94495 |
| FANK1 | 0.0324465 | 0 |
| FAP | 0 | 0 |

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| FAR1 | 19.8774077 | 14.31748 |
| FAR2 | 14.5922822 | 12.4271 |
| FARP1 | 0.17582158 | 0.274637 |
| FARP2 | 2.39868674 | 2.300667 |
| FARS2 | 0.12562664 | 0.19461 |
| FARSA | 12.8103609 | 12.9802 |
| FARSB | 0.27305625 | 0.203232 |
| FAS | 4.74614202 | 3.117766 |
| FASLG | 0.01130394 | 0.064207 |
| FASN | 12.8767101 | 23.86534 |
| FASTK | 8.3896974 | 7.59629 |
| FASTKD1 | 1.74046124 | 1.302247 |
| FASTKD2 | 0.50557671 | 0.453972 |
| FASTKD3 | 3.94772034 | 3.301356 |
| FASTKD5 | 0.36719055 | 0.317022 |
| FAT1 | 0.00142409 | 0.003236 |
| FAT1P1 | 0 | 0 |
| FAT2 | 0.09546449 | 0.101876 |
| FAT3 | 0.00110381 | 0.002508 |
| FAT4 | 0.00261022 | 0 |
| FATE1 | 0 | 0 |
| FAU | 249.938622 | 249.2582 |
| FAUP1 | 0 | 0 |
| FAUP2 | 0 | 0 |
| FAUP3 | 0 | 0 |
| FBF1 | 0.94728317 | 1.026652 |
| FBL | 1.91303441 | 1.414655 |
| FBLIM1 | 0.02786288 | 0.050644 |
| FBLL1 | 0 | 0 |
| FBLN1 | 0.00432887 | 0.009835 |
| FBLN2 | 0.00486247 | 0.022095 |
| FBLN5 | 0.00798531 | 0 |
| FBLN7 | 0.0365817 | 0.010389 |
| FBN1 | 9.34077365 | 5.78124 |
| FBN2 | 0 | 0 |
| FBN3 | 0.00234475 | 0.002664 |
| FBP1 | 77.1473298 | 80.89391 |
| FBP2 | 0.04833409 | 0.036606 |
| FBRS | 70.5631349 | 74.67177 |
| FBRS1 | 47.8525068 | 55.01768 |
| FBXL12 | 10.6602515 | 12.25208 |
| FBXL13 | 0.81213725 | 0.651678 |
| FBXL14 | 4.6911089 | 8.93853 |
| FBXL15 | 4.20150559 | 4.226916 |
| FBXL16 | 0.06770452 | 0.083906 |
| FBXL17 | 2.15233445 | 2.276011 |
| FBXL18 | 1.67098875 | 1.494815 |

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| FBXL19 | 4.99600857 | 4.209467 |
| FBXL2 | 0.05327364 | 0.020173 |
| FBXL20 | 12.8075301 | 13.74511 |
| FBXL21 | 0 | 0 |
| FBXL22 | 0 | 0.016117 |
| FBXL3 | 28.6854473 | 27.91644 |
| FBXL4 | 3.29348901 | 3.586637 |
| FBXL5 | 47.9801078 | 41.97593 |
| FBXL6 | 6.00035233 | 5.611974 |
| FBXL7 | 0.00921759 | 0.010471 |
| FBXL8 | 0.788943 | 0.672189 |
| FBXO10 | 0.04595701 | 0.057429 |
| FBXO11 | 23.6191536 | 21.91717 |
| FBXO15 | 0 | 0 |
| FBXO16 | 0.01627348 | 0 |
| FBXO17 | 0 | 0.010251 |
| FBXO18 | 12.7879185 | 10.81685 |
| FBXO2 | 0.05475347 | 0.093301 |
| FBXO21 | 2.40899729 | 2.228825 |
| FBXO22 | 3.82738583 | 4.118122 |
| FBXO22OS | 0 | 0 |
| FBXO24 | 0.10260809 | 0.063581 |
| FBXO25 | 2.96179928 | 2.807136 |
| FBXO27 | 0.03618818 | 0.010278 |
| FBXO28 | 9.12165212 | 8.696652 |
| FBXO3 | 5.89762414 | 7.10144 |
| FBXO30 | 4.98445346 | 4.481167 |
| FBXO31 | 0.59889632 | 0.67375 |
| FBXO32 | 0.25210229 | 0.272073 |
| FBXO33 | 17.9936192 | 17.92159 |
| FBXO34 | 7.48815349 | 7.569599 |
| FBXO36 | 0.09709744 | 0.076364 |
| FBXO38 | 10.8537986 | 9.895727 |
| FBXO39 | 0.02522535 | 0.028656 |
| FBXO4 | 0.8737561 | 0.647803 |
| FBXO40 | 0.33437699 | 0.417426 |
| FBXO41 | 0.06495679 | 0.050313 |
| FBXO42 | 12.9783377 | 14.31822 |
| FBXO43 | 0.0064594 | 0.007338 |
| FBXO44 | 0.28614003 | 0.291199 |
| FBXO45 | 2.45717281 | 2.095624 |
| FBXO46 | 13.008984 | 11.87865 |
| FBXO47 | 0 | 0 |
| FBXO48 | 1.48468685 | 1.01022 |
| FBXO5 | 0.7591296 | 0.736417 |
| FBXO6 | 2.34518521 | 1.786378 |
| FBXO7 | 54.5114628 | 53.02185 |

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| FBXO8 | 4.43631203 | 3.977746 |
| FBXO9 | 13.4768025 | 12.52974 |
| FBXW10 | 0 | 0 |
| FBXW11 | 12.6705045 | 12.2258 |
| FBXW11P1 | 0 | 0 |
| FBXW12 | 0 | 0 |
| FBXW2 | 15.1086664 | 13.23224 |
| FBXW4 | 7.3949853 | 7.375013 |
| FBXW4P1 | 0 | 0 |
| FBXW5 | 41.3692439 | 45.86552 |
| FBXW7 | 4.38455617 | 4.067925 |
| FBXW8 | 1.03935725 | 1.038055 |
| FBXW9 | 0.08473075 | 0.096255 |
| FCAMR | 0.01529671 | 0 |
| FCAR | 0.29047593 | 0.155287 |
| FCER1A | 0.46923485 | 0.348538 |
| FCER1G | 18.4638693 | 19.31824 |
| FCER2 | 0.0650939 | 0.059158 |
| FCF1 | 7.97723225 | 7.029698 |
| FCGBP | 0.01282815 | 0.013116 |
| FCGR1A | 0.00966238 | 0 |
| FCGR1B | 0.01873915 | 0 |
| FCGR1C | 0 | 0 |
| FCGR2A | 170.063679 | 119.573 |
| FCGR2B | 10.699357 | 6.026127 |
| FCGR2C | 66.9000537 | 52.94188 |
| FCGR3A | 9.22209689 | 14.59149 |
| FCGR3B | 2.32698652 | 2.300048 |
| FCGRT | 73.3476036 | 75.64125 |
| FCHO1 | 21.2053195 | 31.48079 |
| FCHO2 | 11.501587 | 12.48473 |
| FCHSD1 | 12.7904097 | 12.01996 |
| FCHSD2 | 16.4316005 | 17.95373 |
| FCN1 | 0.24543188 | 0.297402 |
| FCN2 | 0 | 0 |
| FCN3 | 0.02037338 | 0 |
| FCRL1 | 0.04055812 | 0.05529 |
| FCRL2 | 0.04085762 | 0.037132 |
| FCRL3 | 0.16017973 | 0.166144 |
| FCRL4 | 0 | 0.006905 |
| FCRL5 | 0.01170241 | 0.004431 |
| FCRL6 | 0.02164213 | 0.012293 |
| FCRLA | 0.01793205 | 0.040742 |
| FCRLB | 0.45190191 | 0.445819 |
| FDFT1 | 20.0868784 | 17.36377 |
| FDPS | 32.3613928 | 28.94637 |
| FDPSL1 | 0 | 0 |

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| FDPSL2 | 0 | 0 |
| FDPSL2A | 0 | 0 |
| FDPSL2B | 0 | 0 |
| FDPSL3 | 0 | 0 |
| FDPSL4 | 0 | 0 |
| FDPSL5 | 0 | 0 |
| FDPSP | 0 | 0 |
| FDX1 | 1.35857994 | 1.424648 |
| FDX1L | 0.57432614 | 0.652444 |
| FDXACB1 | 0.56058322 | 0.589659 |
| FDXP1 | 0 | 0 |
| FDXP2 | 0 | 0 |
| FDXR | 0.28756371 | 0.150774 |
| FECH | 2.03377755 | 1.680293 |
| FECHP | 0 | 0 |
| FEM1A | 10.1352597 | 9.022159 |
| FEM1B | 8.86531149 | 7.728359 |
| FEM1C | 11.3897759 | 12.71708 |
| FEN1 | 4.38456213 | 4.099445 |
| FER | 0.57017847 | 0.469606 |
| FER1L4 | 0 | 0 |
| FER1L5 | 0.0128812 | 0.014633 |
| FER1L6 | 0.00356785 | 0 |
| FERD3L | 0 | 0 |
| FERMT1 | 0.0040818 | 0.009274 |
| FERMT2 | 0 | 0.006941 |
| FERMT3 | 147.572777 | 167.3923 |
| FERP | 0 | 0 |
| FES | 122.120757 | 107.9852 |
| FETUB | 0 | 0 |
| FEV | 0 | 0 |
| FEZ1 | 0 | 0 |
| FEZ2 | 6.44308471 | 5.43828 |
| FEZF1 | 0 | 0 |
| FEZF2 | 0 | 0.034351 |
| FFAR1 | 0.09313546 | 0.132254 |
| FFAR2 | 56.0887228 | 41.1074 |
| FFAR3 | 7.24708242 | 10.21609 |
| FGA | 0 | 0 |
| FGB | 0 | 0 |
| FGD1 | 0.75248553 | 0.8269 |
| FGD2 | 3.41791094 | 3.019956 |
| FGD3 | 111.343763 | 103.9675 |
| FGD4 | 31.0221851 | 22.41659 |
| FGD5 | 0.01426171 | 0.028353 |
| FGD6 | 0.22863463 | 0.187727 |
| FGF1 | 0 | 0 |

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| FGF10 | 0 | 0 |
| FGF11 | 1.8818252 | 2.744808 |
| FGF12 | 0 | 0 |
| FGF13 | 0.00609077 | 0.020758 |
| FGF14 | 0 | 0.007899 |
| FGF16 | 0 | 0 |
| FGF17 | 0.13753283 | 0.09765 |
| FGF18 | 0 | 0.015632 |
| FGF19 | 0.00983871 | 0 |
| FGF2 | 0 | 0 |
| FGF20 | 0 | 0 |
| FGF21 | 0 | 0 |
| FGF22 | 0.0819701 | 0 |
| FGF23 | 0.00696664 | 0 |
| FGF3 | 0.01358226 | 0 |
| FGF4 | 0.01723388 | 0.019578 |
| FGF5 | 0 | 0 |
| FGF6 | 0.02825985 | 0 |
| FGF7 | 0.0053418 | 0 |
| FGF7P1 | 0 | 0 |
| FGF7P2 | 0 | 0 |
| FGF8 | 0.03808937 | 0 |
| FGF9 | 0.00464135 | 0.021091 |
| FGFBP1 | 0.01778793 | 0 |
| FGFBP2 | 0.61047075 | 0.571121 |
| FGFBP3 | 0 | 0 |
| FGFR1 | 0.0177754 | 0.033655 |
| FGFR1OP | 8.91206336 | 6.779063 |
| FGFR1OP2 | 23.3381174 | 23.12702 |
| FGFR2 | 24.4120121 | 28.62786 |
| FGFR3 | 0.25509034 | 0.835923 |
| FGFR4 | 0.08024935 | 0.113956 |
| FGFRL1 | 0.24032661 | 0.236121 |
| FGG | 0 | 0.012051 |
| FGGY | 0.70554802 | 0.503809 |
| FGL1 | 0 | 0 |
| FGL2 | 0.90150786 | 0.145504 |
| FGR | 119.398716 | 163.0714 |
| FH | 3.27713259 | 2.094951 |
| FHAD1 | 0.0619607 | 0.089159 |
| FHDC1 | 0.03569115 | 0.051604 |
| FHIT | 0.17360365 | 0.087652 |
| FHL1 | 0.13267983 | 0.100484 |
| FHL2 | 0.08406396 | 0.031833 |
| FHL3 | 303.398981 | 382.7785 |
| FHL5 | 0 | 0 |
| FHOD1 | 74.968889 | 114.5481 |

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| FHOD3 | 0.0723251 | 0.096662 |
| FIBCD1 | 0.00632721 | 0 |
| FIBIN | 0 | 0 |
| FIBP | 9.77315384 | 10.98715 |
| FICD | 1.48998408 | 1.244167 |
| FIG4 | 3.73783662 | 3.030832 |
| FIGF | 0 | 0 |
| FIGLA | 0.11648383 | 0.033082 |
| FIGN | 0.00463624 | 0.015801 |
| FIGNL1 | 0.53575305 | 0.486899 |
| FIGNL2 | 0.31076487 | 0.226574 |
| FILIP1 | 0 | 0 |
| FILIP1L | 0 | 0 |
| FIP1L1 | 20.2553893 | 19.56945 |
| FIS1 | 30.3857286 | 27.56969 |
| FITM1 | 0.14673711 | 0.595342 |
| FITM2 | 0.15362977 | 0.099729 |
| FIZ1 | 0.90108561 | 0.799163 |
| FJX1 | 0 | 0 |
| FKBP10 | 0.00729287 | 0 |
| FKBP11 | 5.2524013 | 6.64567 |
| FKBP14 | 0.692423 | 0.552748 |
| FKBP15 | 4.12651214 | 3.734803 |
| FKBP1A | 93.2840738 | 110.8283 |
| FKBP1B | 0.97007545 | 0.886408 |
| FKBP1C | 0 | 0 |
| FKBP1P1 | 0 | 0 |
| FKBP1P2 | 0 | 0 |
| FKBP1P3 | 0 | 0 |
| FKBP1P4 | 0 | 0 |
| FKBP2 | 14.0768526 | 16.01707 |
| FKBP3 | 6.55578248 | 4.645804 |
| FKBP4 | 1.75257902 | 1.531506 |
| FKBP5 | 0.90210302 | 0.892208 |
| FKBP6 | 0.7723591 | 1.114174 |
| FKBP7 | 0.01448026 | 0 |
| FKBP8 | 94.054425 | 96.63596 |
| FKBP9 | 0.29655763 | 0.350645 |
| FKBP9L | 0 | 0 |
| FKBPL | 2.22142634 | 1.670536 |
| FKRP | 4.95674901 | 4.008353 |
| FKSG2 | 0 | 0 |
| FKSG29 | 0 | 0 |
| FKSG43 | 0 | 0 |
| FKSG74 | 0 | 0 |
| FKSG83 | 0 | 0 |
| FKTN | 0.10433708 | 0.108918 |

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| FLAD1 | 9.16980675 | 8.281334 |
| FLCN | 11.4179012 | 8.822109 |
| FLG | 0 | 0 |
| FLG2 | 0 | 0.002618 |
| FLI1 | 28.8140562 | 22.24635 |
| FLII | 81.1467674 | 83.93926 |
| FLJ10038 | 0 | 0 |
| FLJ10088 | 0 | 0 |
| FLJ10213 | 0 | 0 |
| FLJ10357 | 24.7927867 | 35.24563 |
| FLJ10404 | 34.0085815 | 34.62326 |
| FLJ10489 | 0 | 0 |
| FLJ10661 | 0 | 0 |
| FLJ11235 | 0 | 0 |
| FLJ11506 | 7.86048916 | 6.755978 |
| FLJ12825 | 0 | 0 |
| FLJ12993 | 0 | 0 |
| FLJ13197 | 0 | 0 |
| FLJ13224 | 0 | 0 |
| FLJ14100 | 0 | 0 |
| FLJ14186 | 0 | 0 |
| FLJ14213 | 53.6226189 | 84.7344 |
| FLJ16126 | 0 | 0 |
| FLJ16686 | 0.00763447 | 0.017346 |
| FLJ16779 | 0 | 0 |
| FLJ20021 | 1.40910507 | 1.642891 |
| FLJ20184 | 0 | 0 |
| FLJ20444 | 0 | 0 |
| FLJ20464 | 0 | 0 |
| FLJ20674 | 0.29838067 | 0.214837 |
| FLJ20712 | 0 | 0 |
| FLJ21511 | 0 | 0.009666 |
| FLJ22167 | 0.06082545 | 0.061421 |
| FLJ22184 | 0.02282055 | 0.008642 |
| FLJ22536 | 0 | 0 |
| FLJ23152 | 0 | 0 |
| FLJ23172 | 0 | 0.012698 |
| FLJ23569 | 0 | 0 |
| FLJ23584 | 2.23565831 | 1.603543 |
| FLJ23834 | 0 | 0 |
| FLJ23865 | 0 | 0 |
| FLJ23867 | 0 | 0 |
| FLJ25006 | 5.38471491 | 4.950368 |
| FLJ25076 | 0.24167047 | 0.45359 |
| FLJ25328 | 0 | 0 |
| FLJ25363 | 0 | 0.015998 |
| FLJ25758 | 0 | 0 |

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| FLJ25996 | 0 | 0 |
| FLJ26850 | 0 | 0 |
| FLJ27243 | 0 | 0 |
| FLJ30058 | 0 | 0 |
| FLJ30064 | 0 | 0 |
| FLJ30375 | 0 | 0 |
| FLJ30403 | 0 | 0 |
| FLJ30679 | 0 | 0 |
| FLJ31945 | 0.03274974 | 0.024803 |
| FLJ32063 | 0 | 0 |
| FLJ32065 | 0 | 0 |
| FLJ32255 | 0 | 0 |
| FLJ32682 | 0.01736913 | 0 |
| FLJ32810 | 0.00884905 | 0.010053 |
| FLJ33360 | 0 | 0.009874 |
| FLJ33544 | 0.00978833 | 0 |
| FLJ33630 | 0 | 0 |
| FLJ33996 | 0 | 0 |
| FLJ34048 | 0 | 0 |
| FLJ34208 | 0.40589442 | 0.438047 |
| FLJ34503 | 0 | 0 |
| FLJ35024 | 0 | 0 |
| FLJ35220 | 0.76931051 | 0.73819 |
| FLJ35379 | 0 | 0 |
| FLJ35390 | 0 | 0 |
| FLJ35409 | 0 | 0 |
| FLJ35424 | 0 | 0 |
| FLJ35776 | 0 | 0 |
| FLJ35816 | 0 | 0 |
| FLJ35848 | 0.0404139 | 0.005739 |
| FLJ36000 | 0 | 0 |
| FLJ36031 | 10.0608317 | 7.508704 |
| FLJ36070 | 0.01082107 | 0.012293 |
| FLJ36208 | 3.08590963 | 3.143393 |
| FLJ36848 | 0 | 0 |
| FLJ37078 | 0 | 0.013214 |
| FLJ37201 | 0 | 0 |
| FLJ37307 | 0 | 0 |
| FLJ37396 | 0.00608372 | 0.027645 |
| FLJ37453 | 0 | 0 |
| FLJ37512 | 0.07200456 | 0 |
| FLJ37543 | 0.00707924 | 0.008042 |
| FLJ37786 | 0 | 0 |
| FLJ38379 | 0 | 0 |
| FLJ38576 | 0 | 0 |
| FLJ38717 | 0 | 0 |
| FLJ38723 | 0 | 0 |

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| FLJ39051 | 0.0376798 | 0 |
| FLJ39061 | 0 | 0 |
| FLJ39303 | 0 | 0 |
| FLJ39582 | 0 | 0 |
| FLJ39609 | 0 | 0 |
| FLJ39632 | 0 | 0 |
| FLJ39639 | 6.51227065 | 5.44765 |
| FLJ39653 | 0 | 0 |
| FLJ40113 | 0 | 0 |
| FLJ40125 | 0.22028868 | 0.222446 |
| FLJ40194 | 0 | 0 |
| FLJ40235 | 0 | 0.014001 |
| FLJ40292 | 0 | 0 |
| FLJ40330 | 0 | 0 |
| FLJ40434 | 0 | 0 |
| FLJ40448 | 0 | 0 |
| FLJ40504 | 0 | 0.024803 |
| FLJ40606 | 0 | 0 |
| FLJ40852 | 0 | 0 |
| FLJ41200 | 0.00876055 | 0 |
| FLJ41350 | 0 | 0 |
| FLJ41423 | 0 | 0 |
| FLJ41562 | 0 | 0 |
| FLJ41603 | 0.01296526 | 0.009819 |
| FLJ41733 | 0 | 0 |
| FLJ41856 | 0 | 0.007919 |
| FLJ41941 | 0 | 0 |
| FLJ42280 | 0 | 0 |
| FLJ42289 | 0 | 0 |
| FLJ42393 | 0 | 0 |
| FLJ42418 | 0 | 0 |
| FLJ42627 | 0 | 0 |
| FLJ42709 | 0 | 0 |
| FLJ42842 | 0 | 0 |
| FLJ42875 | 0 | 0 |
| FLJ42953 | 0 | 0 |
| FLJ43080 | 0 | 0 |
| FLJ43276 | 0 | 0 |
| FLJ43390 | 0 | 0 |
| FLJ43663 | 0 | 0 |
| FLJ43681 | 0 | 0 |
| FLJ43763 | 0 | 0 |
| FLJ43826 | 0 | 0 |
| FLJ43859 | 0 | 0.004852 |
| FLJ43860 | 0.01513703 | 0.005732 |
| FLJ43879 | 0 | 0 |
| FLJ43950 | 0 | 0 |

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| FLJ43980 | 0 | 0 |
| FLJ44048 | 0 | 0 |
| FLJ44054 | 0 | 0 |
| FLJ44082 | 0.00426737 | 0 |
| FLJ44313 | 0 | 0 |
| FLJ44342 | 0 | 0 |
| FLJ44385 | 0 | 0 |
| FLJ44477 | 0 | 0 |
| FLJ44606 | 0.81348007 | 0.781953 |
| FLJ44635 | 7.59248062 | 5.613211 |
| FLJ44790 | 0 | 0 |
| FLJ44817 | 0.04144964 | 0.082403 |
| FLJ44881 | 0 | 0 |
| FLJ45079 | 0.74608913 | 0.913945 |
| FLJ45139 | 0 | 0 |
| FLJ45244 | 0 | 0 |
| FLJ45248 | 0 | 0 |
| FLJ45256 | 0 | 0 |
| FLJ45340 | 0 | 0 |
| FLJ45422 | 10.533292 | 10.2945 |
| FLJ45445 | 0 | 0 |
| FLJ45455 | 0.00942417 | 0 |
| FLJ45513 | 0 | 0 |
| FLJ45831 | 0 | 0 |
| FLJ45872 | 0 | 0 |
| FLJ45964 | 0 | 0 |
| FLJ45974 | 0 | 0 |
| FLJ45983 | 0 | 0 |
| FLJ45994 | 0 | 0 |
| FLJ46010 | 0 | 0 |
| FLJ46020 | 0 | 0 |
| FLJ46111 | 0 | 0 |
| FLJ46210 | 0 | 0.008558 |
| FLJ46300 | 0 | 0 |
| FLJ46321 | 0 | 0 |
| FLJ46358 | 0 | 0 |
| FLJ46361 | 0 | 0 |
| FLJ46552 | 0.00605045 | 0.02062 |
| FLJ46836 | 0 | 0 |
| FLJ46838 | 0 | 0 |
| FLJ46906 | 0.17251554 | 0.367463 |
| FLJ90680 | 0 | 0 |
| FLJ90757 | 0 | 0 |
| FLNA | 181.124208 | 191.3924 |
| FLNB | 5.17912358 | 4.578631 |
| FLNC | 0.01610608 | 0.023524 |
| FLOT1 | 121.93543 | 182.4535 |

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| FLOT2 | 96.307519 | 122.5019 |
| FLRT1 | 0 | 0 |
| FLRT2 | 0 | 0 |
| FLRT3 | 0 | 0 |
| FLT1 | 0.00806031 | 0.013735 |
| FLT3 | 0.38307474 | 0.484914 |
| FLT3LG | 11.5882857 | 14.01752 |
| FLT4 | 0.01316346 | 0.011215 |
| FLVCR1 | 19.2053009 | 11.55619 |
| FLVCR2 | 0.04027841 | 0.05883 |
| FLYWCH1 | 2.41560555 | 2.54107 |
| FLYWCH2 | 1.55591544 | 1.907088 |
| FMN1 | 0 | 0.02543 |
| FMN2 | 0.00654078 | 0.026006 |
| FMNL1 | 421.663198 | 509.2115 |
| FMNL2 | 0.06788448 | 0.064265 |
| FMNL3 | 20.9915161 | 31.93502 |
| FMO1 | 0 | 0 |
| FMO10P | 0 | 0 |
| FMO2 | 0 | 0 |
| FMO3 | 0.01016207 | 0 |
| FMO4 | 0.16710174 | 0.078165 |
| FMO5 | 0.56896742 | 0.616293 |
| FMO6P | 0 | 0 |
| FMO8P | 0 | 0 |
| FMO9P | 0 | 0 |
| FMOD | 0.0070413 | 0.007999 |
| FMR1 | 17.8635909 | 21.01496 |
| FMR1NB | 0 | 0 |
| FN1 | 0.00468427 | 0.005321 |
| FN3K | 0.05868899 | 0.100007 |
| FN3KRP | 6.12567145 | 6.239429 |
| FNBP1 | 91.1007243 | 82.34089 |
| FNBP1L | 4.78440194 | 3.979311 |
| FNBP4 | 31.9010311 | 26.7023 |
| FNDC1 | 0.00320948 | 0.010938 |
| FNDC3A | 11.5540455 | 10.64722 |
| FNDC3B | 37.5880458 | 37.69169 |
| FNDC4 | 0.02516497 | 0.085763 |
| FNDC5 | 0.11078458 | 0.080906 |
| FNDC7 | 0.01372411 | 0.046772 |
| FNDC8 | 0.01551685 | 0.035255 |
| FNIP1 | 15.1220894 | 14.92548 |
| FNIP2 | 0.82430918 | 0.936428 |
| FNTA | 18.2947685 | 17.34279 |
| FNTAL1 | 0 | 0 |
| FNTAL2 | 0 | 0 |

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| FNTB | 0.73838516 | 0.550739 |
| FOLH1 | 0 | 0 |
| FOLH1B | 0 | 0 |
| FOLH2 | 0 | 0 |
| FOLR1 | 0 | 0 |
| FOLR1P | 0 | 0 |
| FOLR2 | 0.01859004 | 0 |
| FOLR3 | 0.32346663 | 0.113066 |
| FOLR4 | 0.02872313 | 0 |
| FOS | 141.729294 | 198.3243 |
| FOSB | 3.21282202 | 4.206461 |
| FOSL1 | 0.06302557 | 0.257753 |
| FOSL2 | 102.197543 | 103.7754 |
| FOXA1 | 0.01351242 | 0.007675 |
| FOXA2 | 0 | 0 |
| FOXA3 | 0 | 0 |
| FOXB1 | 0 | 0 |
| FOXB2 | 0.04855735 | 0 |
| FOXC1 | 0.05481691 | 0.062273 |
| FOXC2 | 0 | 0.014192 |
| FOXD1 | 0.00926226 | 0.010522 |
| FOXD2 | 0.2968282 | 0.219692 |
| FOXD3 | 0.02033398 | 0 |
| FOXD4 | 0.01925397 | 0.032809 |
| FOXD4L1 | 0.02034381 | 0.034666 |
| FOXD4L2 | 0.01352546 | 0.007683 |
| FOXD4L3 | 0.02843823 | 0 |
| FOXD4L4 | 0 | 0 |
| FOXD4L5 | 0.02705092 | 0.015365 |
| FOXD4L6 | 0 | 0.01753 |
| FOXE1 | 0.05467437 | 0.048309 |
| FOXE3 | 0 | 0.012057 |
| FOXF1 | 0.00820661 | 0.009323 |
| FOXF2 | 0.00961378 | 0.010921 |
| FOXG1 | 0.02440077 | 0 |
| FOXH1 | 0 | 0.054707 |
| FOXI1 | 0.32966547 | 0.332894 |
| FOXI2 | 0.0198477 | 0.030063 |
| FOXI3 | 0.19992391 | 0.151411 |
| FOXJ1 | 0.00884905 | 0.010053 |
| FOXJ2 | 16.246498 | 13.91192 |
| FOXJ3 | 17.5686717 | 16.03147 |
| FOXK1 | 4.77395818 | 5.414755 |
| FOXK2 | 7.380043 | 10.25398 |
| FOXL1 | 0 | 0.014975 |
| FOXL2 | 0.03073879 | 0.00873 |
| FOXM1 | 0.26093213 | 0.250313 |

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| FOXN1 | 0 | 0 |
| FOXN2 | 22.6725654 | 16.741 |
| FOXN3 | 92.5665399 | 87.8985 |
| FOXN4 | 0.00627247 | 0.007126 |
| FOXO1 | 3.7778174 | 4.008602 |
| FOXO1B | 0 | 0 |
| FOXO3 | 18.385304 | 14.71658 |
| FOXO3B | 0 | 0 |
| FOXO4 | 28.0654297 | 22.20215 |
| FOXO6 | 0.05682522 | 0.048416 |
| FOXP1 | 5.09804405 | 5.228711 |
| FOXP2 | 0.00558293 | 0.012685 |
| FOXP3 | 0.09709431 | 0.090246 |
| FOXP4 | 1.92970763 | 2.224298 |
| FOXQ1 | 0 | 0 |
| FOXR1 | 0 | 0.020716 |
| FOXR2 | 0 | 0 |
| FOXRED1 | 3.7179596 | 3.354444 |
| FOXRED2 | 0.0373378 | 0.03299 |
| FOXS1 | 0 | 0 |
| FPGS | 20.6384586 | 27.26652 |
| FPGT | 0.09205486 | 0.055774 |
| FPR1 | 228.628523 | 211.3025 |
| FPR2 | 1.99750941 | 1.286661 |
| FPR3 | 0.15871327 | 0.18979 |
| FRAG1 | 3.00640758 | 3.393149 |
| FRAP1 | 5.65575378 | 5.075415 |
| FRAS1 | 0.00134597 | 0.007645 |
| FRAT1 | 45.6989653 | 51.43723 |
| FRAT2 | 77.407545 | 85.00066 |
| FRDAP | 0 | 0 |
| FREM1 | 0.00285128 | 0 |
| FREM2 | 0.00130083 | 0.005911 |
| FREM3 | 0.00624917 | 0.007099 |
| FREQ | 0.0461634 | 0.05721 |
| FRG1 | 24.7748147 | 23.5416 |
| FRG1B | 0 | 0 |
| FRG2 | 0 | 0 |
| FRG2B | 0 | 0 |
| FRK | 0.0073799 | 0 |
| FRMD1 | 0 | 0 |
| FRMD3 | 0.19952864 | 0.094445 |
| FRMD4A | 0.96721467 | 0.870592 |
| FRMD4B | 5.96270553 | 3.504905 |
| FRMD5 | 0 | 0.021297 |
| FRMD6 | 0.15845177 | 0.180004 |
| FRMD7 | 0.01313262 | 0 |

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| FRMD8 | 24.6733828 | 25.70578 |
| FRMPD1 | 0.00427692 | 0.009717 |
| FRMPD2 | 0.00415931 | 0 |
| FRMPD2L1 | 0 | 0 |
| FRMPD2L2 | 0 | 0 |
| FRMPD3 | 0.00287664 | 0.003268 |
| FRMPD4 | 0 | 0.00376 |
| FRRS1 | 7.92964312 | 5.039241 |
| FRS2 | 2.79022082 | 2.41093 |
| FRS3 | 1.39780594 | 1.168893 |
| FRY | 57.3551881 | 45.25623 |
| FRYL | 5.92538586 | 5.260192 |
| FRZB | 0 | 0.023474 |
| FSCB | 0 | 0 |
| FSCN1 | 0.81012258 | 0.627876 |
| FSCN2 | 0.03620895 | 0.027423 |
| FSCN3 | 0.07816108 | 0.038054 |
| FSD1 | 0 | 0.013711 |
| FSD1L | 0.19489382 | 0.158145 |
| FSD2 | 0.02530124 | 0.009581 |
| FSHB | 0 | 0 |
| FSHR | 0 | 0 |
| FSIP1 | 0.17190992 | 0.195292 |
| FST | 0 | 0 |
| FSTL1 | 0 | 0 |
| FSTL3 | 0.05861303 | 0.076098 |
| FSTL4 | 0.05078582 | 0.008876 |
| FSTL5 | 0.00435307 | 0 |
| FTCD | 0.06971924 | 0.056573 |
| FTH1 | 6046.38222 | 5499.192 |
| FTHL1 | 0 | 0 |
| FTHL10 | 0 | 0 |
| FTHL11 | 0 | 0 |
| FTHL12 | 0 | 0 |
| FTHL13 | 0 | 0 |
| FTHL15 | 0 | 0 |
| FTHL16 | 0 | 0 |
| FTHL17 | 0 | 0.029379 |
| FTHL18 | 0 | 0 |
| FTHL19 | 0 | 0 |
| FTHL2 | 0 | 0 |
| FTHL3P | 0 | 0 |
| FTHL4 | 0 | 0 |
| FTHL7 | 0 | 0 |
| FTHL8 | 0 | 0 |
| FTHP1 | 0 | 0 |
| FTHP2 | 0 | 0 |

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| FTL | 3809.18166 | 3616.798 |
| FTLL1 | 0 | 0 |
| FTLP | 0 | 0 |
| FTMT | 0.14351762 | 0.081519 |
| FTO | 0.91563505 | 1.040176 |
| FTSJ1 | 7.33893419 | 7.094702 |
| FTSJ2 | 6.6319751 | 4.774038 |
| FTSJ3 | 12.1165928 | 10.12047 |
| FTSJD1 | 5.08572919 | 5.681272 |
| FTSJD2 | 16.8039503 | 14.95426 |
| FUBP1 | 19.5672636 | 17.73991 |
| FUBP3 | 5.76748071 | 5.560835 |
| FUCA1 | 77.3518294 | 55.96497 |
| FUCA1P | 0 | 0 |
| FUCA2 | 5.65218621 | 4.679113 |
| FUK | 2.41627172 | 1.779004 |
| FUNDC1 | 2.78540709 | 1.939389 |
| FUNDC2 | 6.4267712 | 6.938286 |
| FUNDC2P | 0 | 0 |
| FURIN | 215.937191 | 254.1307 |
| FUS | 126.896524 | 113.3619 |
| FUSIP1 | 16.2584543 | 16.27418 |
| FUSIP1P2 | 0 | 0 |
| FUSSEL18 | 0.01677999 | 0.025416 |
| FUT1 | 0.01485539 | 0.005625 |
| FUT10 | 0.08294016 | 0.148062 |
| FUT11 | 8.99916889 | 8.178559 |
| FUT2 | 0.02035366 | 0.023122 |
| FUT3 | 0.02435367 | 0 |
| FUT4 | 3.04881205 | 2.598611 |
| FUT5 | 0 | 0.012015 |
| FUT6 | 0 | 0 |
| FUT7 | 0.05225849 | 0.098944 |
| FUT8 | 0.40480797 | 0.314056 |
| FUT9 | 0 | 0 |
| FUZ | 9.00159142 | 6.881151 |
| FXC1 | 7.25011412 | 6.15197 |
| FXN | 0.13893391 | 0.220964 |
| FXR1 | 15.4538216 | 14.38342 |
| FXR2 | 20.167456 | 20.54976 |
| FXYD1 | 0 | 0 |
| FXYD2 | 0.0074242 | 0 |
| FXYD3 | 0 | 0 |
| FXYD4 | 0.02727021 | 0 |
| FXYD5 | 10.2741807 | 14.93735 |
| FXYD6 | 0.01255244 | 0 |
| FXYD7 | 0 | 0.100498 |

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| FXD8 | 0 | 0 |
| FYB | 82.8471202 | 53.08352 |
| FYCO1 | 2.48447473 | 2.019211 |
| FYN | 0.62729138 | 0.620392 |
| FYTTD1 | 12.7164295 | 15.04691 |
| FZD1 | 0.04833409 | 0.027454 |
| FZD10 | 0 | 0.00734 |
| FZD2 | 0.03180837 | 0.02409 |
| FZD3 | 0.03742113 | 0.030365 |
| FZD4 | 0 | 0.003235 |
| FZD5 | 0.1153126 | 0.072776 |
| FZD6 | 0.26883748 | 0.279953 |
| FZD7 | 0.6442454 | 0.42796 |
| FZD8 | 0.02639715 | 0.014994 |
| FZD9 | 0.10773013 | 0.203972 |
| FZR1 | 22.1218507 | 21.2356 |
| G0S2 | 3.29680683 | 2.951535 |
| G2E3 | 4.33993572 | 4.322516 |
| G3BP1 | 12.0293075 | 10.16065 |
| G3BP2 | 43.718459 | 41.07861 |
| G6PC | 0 | 0.007715 |
| G6PC2 | 0.00682419 | 0 |
| G6PC3 | 1.2685373 | 1.042482 |
| G6PD | 144.460844 | 126.8204 |
| GAA | 19.9503935 | 23.43588 |
| GAB1 | 0.83995001 | 0.703569 |
| GAB2 | 4.33338659 | 3.819747 |
| GAB3 | 31.0789959 | 35.72439 |
| GAB4 | 0 | 0 |
| GABARAP | 248.607469 | 235.1065 |
| GABARAPL1 | 201.809447 | 230.4211 |
| GABARAPL2 | 55.2701814 | 59.40289 |
| GABARAPL3 | 0 | 0 |
| GABBR1 | 0.02875119 | 0.04666 |
| GABBR2 | 0.00383394 | 0.004355 |
| GABPA | 8.06106318 | 8.216847 |
| GABPAP | 0 | 0 |
| GABPB1 | 5.60417829 | 4.588224 |
| GABPB2 | 1.21651941 | 1.149616 |
| GABRA1 | 0 | 0 |
| GABRA2 | 0.00681755 | 0 |
| GABRA3 | 0.00754949 | 0.017153 |
| GABRA4 | 0.00188924 | 0.002146 |
| GABRA5 | 0 | 0 |
| GABRA6 | 0 | 0 |
| GABRB1 | 0 | 0.01073 |
| GABRB2 | 0.00851343 | 0.003224 |

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| GABRB3 | 0 | 0.004016 |
| GABRD | 0.01092225 | 0.012408 |
| GABRE | 0.00667047 | 0 |
| GABRG1 | 0 | 0 |
| GABRG2 | 0 | 0 |
| GABRG3 | 0.01253747 | 0.042728 |
| GABRP | 0 | 0 |
| GABRQ | 0 | 0 |
| GABRR1 | 0 | 0 |
| GABRR2 | 0.91526579 | 0.907956 |
| GABRR3 | 0 | 0 |
| GAD1 | 0.00572741 | 0.006506 |
| GAD2 | 0 | 0 |
| GADD45A | 20.4356907 | 24.64309 |
| GADD45B | 36.2505706 | 47.66508 |
| GADD45G | 6.03541395 | 9.701925 |
| GADD45GIP1 | 1.9242564 | 1.575196 |
| GADL1 | 0 | 0.006535 |
| GAF A1 | 0.15235747 | 0.08654 |
| GAF A3 | 1.48255539 | 1.377987 |
| GAGE1 | 0.02206226 | 0 |
| GAGE10 | 0 | 0 |
| GAGE12B | 0 | 0 |
| GAGE12C | 0 | 0 |
| GAGE12D | 0 | 0 |
| GAGE12E | 0 | 0 |
| GAGE12F | 0 | 0 |
| GAGE12G | 0 | 0 |
| GAGE12H | 0 | 0 |
| GAGE12I | 0 | 0 |
| GAGE12J | 0 | 0 |
| GAGE13 | 0 | 0 |
| GAGE2A | 0 | 0 |
| GAGE2B | 0 | 0 |
| GAGE2C | 0 | 0 |
| GAGE2D | 0 | 0 |
| GAGE2E | 0 | 0 |
| GAGE8 | 0 | 0 |
| GAK | 54.1712014 | 60.72753 |
| GAL | 0 | 0 |
| GAL3ST1 | 0.01173944 | 0 |
| GAL3ST2 | 0.02902047 | 0.032968 |
| GAL3ST3 | 0.00633293 | 0 |
| GAL3ST4 | 0.69532591 | 0.648847 |
| GALC | 114.968194 | 70.76632 |
| GALE | 0.75817932 | 0.809883 |
| GALK1 | 1.62208652 | 2.632451 |

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| GALK2 | 0.95142909 | 0.810629 |
| GALM | 1.30402778 | 1.135096 |
| GALNAC4S-6ST | 54.0009569 | 62.14722 |
| GALNS | 18.5873535 | 23.97608 |
| GALNT1 | 55.3791221 | 59.65676 |
| GALNT10 | 16.5163845 | 15.8531 |
| GALNT11 | 3.46045124 | 3.588909 |
| GALNT12 | 4.61156106 | 3.183515 |
| GALNT13 | 0 | 0.004217 |
| GALNT14 | 0.01550541 | 0.008807 |
| GALNT2 | 5.63473211 | 5.961903 |
| GALNT3 | 19.5901768 | 24.56503 |
| GALNT4 | 0 | 0 |
| GALNT5 | 0.00671521 | 0 |
| GALNT6 | 45.1207324 | 37.79343 |
| GALNT7 | 15.9142278 | 19.27668 |
| GALNT8 | 0 | 0.011187 |
| GALNT9 (NC_00C | 0.01217448 | 0 |
| GALNT9 (NC_00C | 0 | 0 |
| GALNTL1 | 0 | 0.008216 |
| GALNTL2 | 0.01359103 | 0.010293 |
| GALNTL4 | 0 | 0 |
| GALNTL5 | 0 | 0 |
| GALNTL6 | 0.01475462 | 0 |
| GALP | 0 | 0 |
| GALR1 | 0.00754407 | 0 |
| GALR2 | 0.08099126 | 0.12881 |
| GALR3 | 0.01817228 | 0.020644 |
| GALT | 5.54375768 | 4.920154 |
| GAMT | 0.69010933 | 0.487807 |
| GAMTP | 0 | 0 |
| GAN | 0.50897588 | 0.388974 |
| GANAB | 36.9859314 | 33.88239 |
| GANC | 1.48085083 | 1.385399 |
| GAP43 | 0.01998606 | 0 |
| GAPDH | 489.472915 | 608.7603 |
| GAPDHL1 | 0 | 0 |
| GAPDHL10 | 0 | 0 |
| GAPDHL11 | 0 | 0 |
| GAPDHL12 | 0 | 0 |
| GAPDHL13 | 0 | 0 |
| GAPDHL14 | 0 | 0 |
| GAPDHL15 | 0 | 0 |
| GAPDHL16 | 0 | 0 |
| GAPDHL18 | 0 | 0 |
| GAPDHL19 | 0 | 0 |
| GAPDHL3 | 0 | 0 |

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| GAPDHL4 | 0 | 0 |
| GAPDHL5 | 0 | 0 |
| GAPDHL6 | 0 | 0 |
| GAPDHL7 | 0 | 0 |
| GAPDHL8 | 0 | 0 |
| GAPDHL9 | 0 | 0 |
| GAPDHP1 | 0 | 0 |
| GAPDHP14 | 0 | 0 |
| GAPDHP15 | 0 | 0 |
| GAPDHP16 | 0 | 0 |
| GAPDHP17 | 0 | 0 |
| GAPDHP19 | 0 | 0 |
| GAPDHP2 | 0 | 0 |
| GAPDHS | 0.26774885 | 0.336185 |
| GAPT | 607.618782 | 518.585 |
| GAPVD1 | 12.8001507 | 12.82841 |
| GAR1 | 2.02453858 | 1.960577 |
| GARNL1 | 3.22170954 | 3.532348 |
| GARNL2P | 0 | 0 |
| GARNL3 | 0.09562082 | 0.063898 |
| GARNL4 | 24.1051333 | 25.86747 |
| GARS | 11.3995522 | 11.03058 |
| GART | 1.53403702 | 1.267902 |
| GAS1 | 0.0074347 | 0.008446 |
| GAS2 | 0.19053688 | 0.18822 |
| GAS2L1 | 0.04173073 | 0.023703 |
| GAS2L2 | 0 | 0.015886 |
| GAS2L3 | 0.01802429 | 0 |
| GAS5 | 0 | 0 |
| GAS6 | 0.0484827 | 0.036718 |
| GAS7 | 11.9599928 | 7.838815 |
| GAS8 | 0.6403319 | 0.749925 |
| GAST | 0 | 0.054908 |
| GATA1 | 77.0407904 | 79.15977 |
| GATA2 | 0.39659896 | 0.412469 |
| GATA3 | 0.05478914 | 0.093362 |
| GATA4 | 0.01233881 | 0.007009 |
| GATA5 | 0 | 0 |
| GATA6 | 0.01203511 | 0 |
| GATAD1 | 10.951247 | 10.77397 |
| GATAD2A | 15.6466717 | 20.12043 |
| GATAD2B | 26.0778209 | 31.95967 |
| GATC | 6.4457219 | 6.508838 |
| GATM | 0.08130445 | 0.083127 |
| GATS | 9.61336729 | 8.978385 |
| GATSL1 | 5.62799263 | 5.090665 |
| GATSL2 | 5.05457451 | 4.65639 |

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| GATSL3 | 11.2904212 | 17.30271 |
| GBA | 10.3091945 | 8.656653 |
| GBA2 | 41.7071298 | 47.55855 |
| GBA3 | 0 | 0.011125 |
| GBAP | 0 | 0 |
| GBAS | 10.3742008 | 10.35747 |
| GBE1 | 8.22287871 | 7.260333 |
| GBF1 | 17.7871134 | 16.27304 |
| GBGT1 | 3.36577899 | 4.399566 |
| GBL | 1.28203238 | 0.946666 |
| GBP1 | 0.06893551 | 0.031325 |
| GBP2 | 9.96576381 | 6.682308 |
| GBP3 | 0.36656005 | 0.337849 |
| GBP4 | 0.06500916 | 0.081625 |
| GBP5 | 0.07264428 | 0.058946 |
| GBP6 | 0.00431998 | 0.004908 |
| GBP7 | 0 | 0 |
| GBX1 | 0.01588016 | 0 |
| GBX2 | 0 | 0 |
| GC | 0 | 0 |
| GCA | 33.2911936 | 22.90039 |
| GCAT | 0.21616173 | 0.212821 |
| GCATP | 0 | 0 |
| GCC1 | 12.2936107 | 11.53214 |
| GCC2 | 24.0675912 | 25.45604 |
| GCDH | 6.72764432 | 6.803717 |
| GCET2 | 0 | 0.013775 |
| GCG | 0 | 0 |
| GCGR | 0 | 0 |
| GCH1 | 2.25630688 | 2.261167 |
| GCHFR | 11.4710431 | 11.08832 |
| GCK | 0 | 0.015545 |
| GCKR | 0 | 0.010911 |
| GCLC | 5.70178467 | 4.472434 |
| GCLM | 1.62785581 | 1.383067 |
| GCM1 | 2.22800071 | 1.943635 |
| GCM2 | 0 | 0.010099 |
| GCN1L1 | 6.3575672 | 5.505589 |
| GCNT1 | 4.97235465 | 3.729049 |
| GCNT1P | 0 | 0 |
| GCNT2 | 0.49806686 | 0.304165 |
| GCNT3 | 0 | 0 |
| GCNT4 | 0.04283391 | 0.013903 |
| GCNT6 | 0.01787868 | 0.040621 |
| GCNT7 | 0.26485398 | 0.243017 |
| GCOM1 | 1.43891055 | 1.136575 |
| GCSH | 0.01810967 | 0.041146 |

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| GDA | 0 | 0 |
| GDAP1 | 1.10006861 | 1.12105 |
| GDAP1L1 | 0 | 0 |
| GDAP2 | 5.50000379 | 5.10129 |
| GDE1 | 17.252655 | 16.99689 |
| GDEP | 0 | 0 |
| GDF1 | 0.02465832 | 0.018675 |
| GDF10 | 0.00786288 | 0.008932 |
| GDF11 | 0.53303656 | 0.616752 |
| GDF15 | 0.17521109 | 0.258755 |
| GDF2 | 0.02172038 | 0.012337 |
| GDF3 | 0 | 0 |
| GDF5 | 0 | 0 |
| GDF5OS | 0 | 0 |
| GDF6 | 0 | 0.006454 |
| GDF7 | 0.0105443 | 0 |
| GDF9 | 0.07286006 | 0.011824 |
| GDI1 | 59.8132954 | 57.7055 |
| GDI2 | 47.211108 | 51.53321 |
| GDI2P | 0 | 0 |
| GDNF | 0 | 0 |
| GDPD1 | 0.09236829 | 0.118048 |
| GDPD2 | 0.00970699 | 0 |
| GDPD3 | 19.3785382 | 18.49029 |
| GDPD4 | 0 | 0 |
| GDPD5 | 1.8547866 | 1.813583 |
| GEFT | 0.02250303 | 0 |
| GEM | 0.03828007 | 0.032615 |
| GEMIN4 | 1.85468036 | 1.877098 |
| GEMIN5 | 0.63418374 | 0.521548 |
| GEMIN6 | 1.2439229 | 1.10292 |
| GEMIN7 | 2.54737283 | 2.375553 |
| GEMIN8 | 0.75482164 | 0.945437 |
| GEMIN8P | 0 | 0 |
| GEN1 | 1.09626239 | 0.855031 |
| GFAP | 0.02291589 | 0.013016 |
| GFER | 1.28352311 | 1.398588 |
| GFI1 | 0.39016078 | 0.303694 |
| GFI1B | 64.9543027 | 69.82827 |
| GFM1 | 2.38262834 | 2.286579 |
| GFM2 | 7.74411258 | 6.824317 |
| GFOD1 | 7.63344514 | 5.480651 |
| GFOD2 | 1.42880473 | 1.634993 |
| GFPT1 | 2.99284308 | 2.772453 |
| GFPT2 | 0.02094852 | 0 |
| GFRA1 | 0.00437982 | 0.004976 |
| GFRA2 | 0.31569566 | 0.215181 |

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| GFRA3 | 0 | 0.012369 |
| GFRA4 | 0 | 0 |
| GFRAL | 0 | 0.012499 |
| GGA1 | 15.6271352 | 15.51607 |
| GGA2 | 115.525801 | 135.2875 |
| GGA3 | 26.2297291 | 25.3135 |
| GGCT | 1.57013201 | 1.025112 |
| GGCX | 3.40601296 | 3.266088 |
| GGH | 0.4506434 | 0.41595 |
| GGN | 0.3221151 | 0.188508 |
| GGNBP1 | 0.07031883 | 0 |
| GGNBP2 | 29.5564724 | 25.99009 |
| GGPS1 | 7.56261063 | 6.654398 |
| GGT1 | 1.74584592 | 1.660665 |
| GGT2 | 0.02220204 | 0.025222 |
| GGT3P | 0 | 0 |
| GGT5 | 0.93464627 | 1.013945 |
| GGT6 | 0.01598884 | 0.009082 |
| GGT7 | 3.07415824 | 3.401819 |
| GGT8P | 0 | 0 |
| GGTA1 | 0 | 0 |
| GGTA1P | 0 | 0 |
| GGTLC1 | 0 | 0 |
| GGTLC2 | 0.02479402 | 0 |
| GGTLC3 | 0 | 0 |
| GGTLC4P | 0 | 0 |
| GGTLC5P | 0 | 0 |
| GH1 | 0 | 0 |
| GH2 | 0.01950402 | 0 |
| GHDC | 6.52739072 | 5.540215 |
| GHITM | 60.8953338 | 55.14349 |
| GHR | 0.00964465 | 0 |
| GHRH | 0.0463113 | 0 |
| GHRHR | 0 | 0 |
| GHRL | 1.12754141 | 0.979516 |
| GHRLOS | 0 | 0 |
| GHSR | 0.0178939 | 0 |
| GIF | 0.01389645 | 0 |
| GIGYF1 | 31.9150505 | 30.9612 |
| GIGYF2 | 12.2245783 | 11.01038 |
| GIMAP1 | 0.13477776 | 0.15311 |
| GIMAP2 | 0.50996991 | 0.397258 |
| GIMAP3P | 0 | 0 |
| GIMAP4 | 0.08559931 | 0.097242 |
| GIMAP5 | 0.18076588 | 0.166849 |
| GIMAP6 | 0.20177861 | 0.163731 |
| GIMAP7 | 0.29083045 | 0.330388 |

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| GIMAP8 | 0.11197868 | 0.157498 |
| GIN1 | 0.81162872 | 0.558598 |
| GINS1 | 0.00639262 | 0.014524 |
| GINS2 | 0.05345423 | 0.080966 |
| GINS3 | 0.18466414 | 0.109885 |
| GINS4 | 0.13137411 | 0.136806 |
| GIP | 0 | 0 |
| GIPC1 | 0.08719681 | 0.123821 |
| GIPC2 | 0 | 0.008461 |
| GIPC3 | 0.1022775 | 0.077459 |
| GIPR | 42.8505386 | 51.08628 |
| GIT1 | 5.46323094 | 6.568405 |
| GIT2 | 34.1055002 | 32.46393 |
| GIYD1 | 18.8698564 | 22.68226 |
| GIYD2 | 19.2291021 | 20.08325 |
| GJA1 | 0 | 0 |
| GJA10 | 0 | 0 |
| GJA1P1 | 0 | 0 |
| GJA3 | 0.00807735 | 0.009176 |
| GJA4 | 0.11666337 | 0.854091 |
| GJA5 | 0 | 0.007271 |
| GJA6P | 0 | 0 |
| GJA8 | 0.01530228 | 0.017384 |
| GJA9 | 0.01818014 | 0.010326 |
| GJB1 | 0.01213233 | 0 |
| GJB2 | 0.00900828 | 0 |
| GJB3 | 0.00893934 | 0.010155 |
| GJB4 | 0.01826701 | 0.020752 |
| GJB5 | 0.01641322 | 0.037291 |
| GJB6 | 0.00838331 | 0 |
| GJB7 | 0.00922164 | 0 |
| GJC1 | 0.0053787 | 0.003055 |
| GJC2 | 0.12185881 | 0.149082 |
| GJC3 | 0.02503016 | 0.028435 |
| GJD2 | 0 | 0 |
| GJD3 | 0 | 0 |
| GJD4 | 0 | 0.030234 |
| GK | 23.2774402 | 21.60881 |
| GK2 | 0 | 0 |
| GK3P | 0 | 0 |
| GK4P | 0 | 0 |
| GK5 | 20.3184892 | 16.26163 |
| GK6P | 0 | 0 |
| GK7P | 0 | 0 |
| GKAP1 | 4.31058574 | 4.501572 |
| GKN1 | 0 | 0 |
| GKN2 | 0.02628166 | 0.029856 |

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| GLA | 12.2029953 | 8.607398 |
| GLB1 | 14.855193 | 12.7056 |
| GLB1L | 0.10072015 | 0.15256 |
| GLB1L2 | 0.01349075 | 0.022989 |
| GLB1L3 | 0.00714176 | 0 |
| GLCCI1 | 16.4480566 | 14.10958 |
| GLCE | 0.14175317 | 0.232078 |
| GLDC | 0.00551991 | 0.006271 |
| GLDCP | 0 | 0 |
| GLDN | 0.00413559 | 0.014094 |
| GLE1 | 11.3576198 | 10.10759 |
| GLG1 | 24.200539 | 22.03677 |
| GLI1 | 0.82795258 | 1.066418 |
| GLI2 | 0 | 0.003529 |
| GLI3 | 0.01023753 | 0.01163 |
| GLI4 | 3.63207504 | 3.041216 |
| GLIPR1 | 2.58309671 | 1.815684 |
| GLIPR1L1 | 0.06556756 | 0.049657 |
| GLIPR1L2 | 0 | 0 |
| GLIPR2 | 35.5521263 | 33.944 |
| GLIS1 | 0.01493276 | 0.008482 |
| GLIS2 | 0.26104325 | 0.406144 |
| GLIS3 | 0.00812102 | 0 |
| GLMN | 1.72796765 | 1.375275 |
| GLO1 | 4.97130444 | 3.803882 |
| GLOD4 | 7.66846584 | 6.631141 |
| GLOD5 | 0.17742895 | 0.251953 |
| GLP-1 | 0.21237708 | 0.241264 |
| GLP1R | 0 | 0.007648 |
| GLP2R | 0.01265062 | 0.014371 |
| GLRA1 | 0.01230271 | 0 |
| GLRA2 | 0.0059833 | 0 |
| GLRA3 | 0 | 0 |
| GLRA4 | 0.01255244 | 0 |
| GLRB | 0 | 0 |
| GLRX | 60.1143191 | 74.91832 |
| GLRX2 | 3.41742996 | 3.161264 |
| GLRX3 | 7.41971085 | 6.278481 |
| GLRX5 | 8.51068051 | 7.954904 |
| GLRXL | 0 | 0 |
| GLRXP | 0 | 0 |
| GLRXP2 | 0 | 0 |
| GLS | 7.01329043 | 6.409006 |
| GLS2 | 0.15229939 | 0.100166 |
| GLT1D1 | 0.35544477 | 0.509128 |
| GLT25D1 | 18.1345674 | 21.63155 |
| GLT25D2 | 3.13635292 | 4.235896 |

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| GLT6D1 | 0 | 0 |
| GLT8D1 | 7.0950746 | 5.993421 |
| GLT8D2 | 0.10081405 | 0.101801 |
| GLT8D3 | 11.4966925 | 11.82295 |
| GLT8D4 | 0 | 0 |
| GLTP | 9.86120149 | 12.63194 |
| GLTPD1 | 6.30855804 | 5.837856 |
| GLTPD2 | 0.63713124 | 0.186785 |
| GLTPP1 | 0 | 0 |
| GLTSCR1 | 6.2683989 | 6.430126 |
| GLTSCR2 | 24.3074707 | 22.2439 |
| GLUD1 | 20.3680732 | 21.35434 |
| GLUD2 | 0 | 0.020458 |
| GLUDP2 | 0 | 0 |
| GLUDP3 | 0 | 0 |
| GLUDP4 | 0 | 0 |
| GLUDP5 | 0 | 0 |
| GLUL | 798.126794 | 802.5603 |
| GLULL1 | 0 | 0 |
| GLULL2 | 0 | 0 |
| GLULL3 | 0 | 0 |
| GLULP | 0 | 0 |
| GLYAT | 0.00849165 | 0 |
| GLYATL1 | 0 | 0 |
| GLYATL2 | 0 | 0 |
| GLYCAM1 | 0 | 0 |
| GLYCTK | 2.71258878 | 2.339458 |
| GM2A | 1.09400096 | 0.886791 |
| GM2AP | 0 | 0 |
| GMCL1 | 17.0550745 | 17.94947 |
| GMCL1L | 0 | 0 |
| GMDS | 0.41497364 | 0.599985 |
| GMEB1 | 6.45785634 | 7.445181 |
| GMEB2 | 10.0584003 | 10.56205 |
| GMFB | 5.23467028 | 4.979683 |
| GMFG | 260.752506 | 244.8133 |
| GMIP | 153.263125 | 162.1091 |
| GML | 0.02908068 | 0 |
| GMNN | 3.23599744 | 2.39834 |
| GMPPA | 6.11999568 | 5.133089 |
| GMPPB | 2.20240982 | 1.789201 |
| GMPR | 0.83268637 | 0.756756 |
| GMPR2 | 13.0830446 | 11.46989 |
| GMPS | 5.04026045 | 5.375851 |
| GNA11 | 1.05582877 | 1.169822 |
| GNA12 | 1.44291487 | 1.546596 |
| GNA13 | 26.682281 | 27.65465 |

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| GNA14 | 0.00844052 | 0.057531 |
| GNA15 | 42.1887269 | 43.25535 |
| GNAI1 | 0.05703073 | 0.043192 |
| GNAI2 | 381.447288 | 379.1218 |
| GNAI3 | 18.4071661 | 16.77007 |
| GNAL | 0.48754391 | 0.583529 |
| GNAO1 | 0.01326854 | 0.018088 |
| GNAQ | 20.9381693 | 19.02227 |
| GNAQP | 0 | 0 |
| GNAS | 90.7030679 | 107.6176 |
| GNASAS | 0 | 0 |
| GNAT1 | 0.00584199 | 0 |
| GNAT2 | 1.40168873 | 0.874912 |
| GNAT3 | 0 | 0 |
| GNAZ | 0.01310806 | 0 |
| GNB1 | 104.958613 | 110.041 |
| GNB1L | 9.37073671 | 12.68946 |
| GNB2 | 123.940788 | 147.947 |
| GNB2L1 | 102.927432 | 105.3615 |
| GNB3 | 0.01093361 | 0.049683 |
| GNB4 | 2.92091172 | 2.987497 |
| GNB5 | 0.31173204 | 0.316459 |
| GNE | 2.29549318 | 1.767647 |
| GNG10 | 6.38359446 | 6.062405 |
| GNG11 | 0.02203913 | 0 |
| GNG12 | 0 | 0 |
| GNG13 | 0.02136721 | 0 |
| GNG2 | 16.8998319 | 10.81578 |
| GNG3 | 0 | 0 |
| GNG4 | 0.00791616 | 0.004496 |
| GNG5 | 55.5632195 | 68.21777 |
| GNG5P | 0 | 0 |
| GNG5P2 | 0 | 0 |
| GNG5P3 | 0 | 0 |
| GNG5P4 | 0 | 0 |
| GNG5P5 | 0 | 0 |
| GNG7 | 1.89156981 | 1.590036 |
| GNG8 | 0 | 0 |
| GNGT1 | 0 | 0 |
| GNGT2 | 3.03249966 | 2.755974 |
| GNL1 | 7.92907393 | 7.363318 |
| GNL2 | 10.5914448 | 9.426763 |
| GNL3 | 3.7888785 | 3.601723 |
| GNL3L | 5.16546733 | 4.90579 |
| GNL3LP | 0 | 0 |
| GPLY | 1.83014014 | 1.692265 |
| GNMT | 1.85054411 | 2.281162 |

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|------------|------------|----------|
| GNPAT | 12.4112215 | 10.19573 |
| GNPATP | 0 | 0 |
| GNPDA1 | 1.72999023 | 1.840516 |
| GNPDA2 | 1.57854414 | 1.531735 |
| GNPNAT1 | 0.34792426 | 0.194583 |
| GNPTAB | 7.81101343 | 9.417922 |
| GNPTG | 17.3853314 | 15.12264 |
| GNRH1 | 3.28581916 | 3.443899 |
| GNRH2 | 0 | 0 |
| GNRHR | 0.00359838 | 0.016351 |
| GNRHR2 | 0 | 0 |
| GNS | 18.4340655 | 13.76841 |
| GOLGA1 | 11.8520506 | 11.21847 |
| GOLGA2 | 22.1308883 | 20.44251 |
| GOLGA2L1 | 0.56599523 | 0.621898 |
| GOLGA2P2Y | 0 | 0 |
| GOLGA2P3Y | 0 | 0 |
| GOLGA3 | 6.35395864 | 6.50309 |
| GOLGA4 | 13.7284328 | 13.50864 |
| GOLGA4P1 | 0 | 0 |
| GOLGA5 | 14.3999154 | 11.96321 |
| GOLGA6 | 0.01324013 | 0.022562 |
| GOLGA6B | 0.0066159 | 0.05261 |
| GOLGA6C | 0.02441258 | 0.027733 |
| GOLGA6D | 0.0182882 | 0.041551 |
| GOLGA6L11P | 0 | 0 |
| GOLGA6L12P | 0 | 0 |
| GOLGA6L13P | 0 | 0 |
| GOLGA6L14P | 0 | 0 |
| GOLGA6L16P | 0 | 0 |
| GOLGA7 | 15.6756308 | 13.55362 |
| GOLGA7B | 0 | 0.008253 |
| GOLGA8A | 3.52231592 | 3.923754 |
| GOLGA8B | 18.5222157 | 17.47992 |
| GOLGA8C | 0 | 0 |
| GOLGA8D | 0 | 0 |
| GOLGA8E | 0.78198351 | 0.88379 |
| GOLGA8F | 0 | 0.008521 |
| GOLGA8G | 0.01200076 | 0.018177 |
| GOLGA9P | 0 | 0 |
| GOLGB1 | 12.6753515 | 11.53148 |
| GOLIM4 | 22.7366951 | 25.01288 |
| GOLM1 | 1.05648375 | 1.052012 |
| GOLPH3 | 27.4680706 | 30.48118 |
| GOLPH3L | 1.80349733 | 1.868025 |
| GOLSYN | 0.01389645 | 0.010524 |
| GOLT1A | 0.02381125 | 0 |

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| GOLT1B | 8.43712089 | 7.920337 |
| GON4L | 14.7362055 | 13.1029 |
| GOPC | 4.99146106 | 4.191826 |
| GORAB | 0.09618175 | 0.054632 |
| GORASP1 | 8.68661858 | 9.125878 |
| GORASP2 | 9.15388559 | 8.257997 |
| GOSR1 | 5.03050214 | 4.925705 |
| GOSR2 | 5.25527916 | 4.840218 |
| GOT1 | 1.46297554 | 1.718111 |
| GOT1L1 | 0 | 0 |
| GOT2 | 1.90748814 | 1.776498 |
| GOT2L1 | 0 | 0 |
| GOT2L2 | 0 | 0 |
| GOT2P5 | 0 | 0 |
| GP1BA | 1.64820832 | 1.552241 |
| GP1BB | 0.02194711 | 0.199458 |
| GP2 | 0 | 0 |
| GP5 | 0.01203855 | 0.006838 |
| GP6 | 0.01854086 | 0.042125 |
| GP9 | 0.0490101 | 0.027838 |
| GPA33 | 0.01505573 | 0.008552 |
| GPAA1 | 15.6647362 | 16.02741 |
| GPAA1P1 | 0 | 0 |
| GPAM | 0.26731311 | 0.202448 |
| GPATCH1 | 3.45836051 | 2.671267 |
| GPATCH2 | 0.89105641 | 0.889557 |
| GPATCH3 | 9.02637506 | 8.481514 |
| GPATCH4 | 0.19240262 | 0.29143 |
| GPATCH8 | 13.1883381 | 12.32207 |
| GPBAR1 | 0.22043532 | 0.17887 |
| GPBP1 | 28.5676588 | 24.77832 |
| GPBP1L1 | 47.3266813 | 45.41877 |
| GPC1 | 0.06844926 | 0.071279 |
| GPC2 | 0.41519216 | 0.282999 |
| GPC3 | 0.018188 | 0.010331 |
| GPC4 | 0 | 0.006431 |
| GPC5 | 0.00729287 | 0 |
| GPC6 | 0.00296006 | 0 |
| GPD1 | 0.0584646 | 0.04151 |
| GPD1L | 8.94248731 | 9.205847 |
| GPD2 | 10.1727759 | 10.20987 |
| GPER | 0 | 0 |
| GPHA2 | 0.05629272 | 0.063949 |
| GPHB5 | 0 | 0.060931 |
| GPHN | 0.18083153 | 0.21098 |
| GPI | 187.130512 | 197.4694 |
| GPIHBP1 | 0 | 0 |

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| GPKOW | 11.7090221 | 12.78114 |
| GPLD1 | 0 | 0.005928 |
| GPM6A | 0.0055359 | 0.012578 |
| GPM6B | 0.53937448 | 0.548546 |
| GPN1 | 8.59593267 | 8.503536 |
| GPN2 | 12.239249 | 12.82836 |
| GPN3 | 7.47919587 | 5.828032 |
| GPNMB | 0 | 0.025906 |
| GPR1 | 0.01814092 | 0 |
| GPR101 | 0.01376904 | 0 |
| GPR107 | 12.6039106 | 12.15515 |
| GPR108 | 76.3007494 | 110.2629 |
| GPR110 | 0 | 0 |
| GPR111 | 0 | 0.021316 |
| GPR112 | 0.00211714 | 0 |
| GPR113 | 0.02726011 | 0.035392 |
| GPR114 | 56.1215893 | 50.46928 |
| GPR115 | 0 | 0 |
| GPR116 | 0 | 0 |
| GPR119 | 0 | 0 |
| GPR12 | 0 | 0 |
| GPR120 | 0.01766835 | 0 |
| GPR123 | 0 | 0.005577 |
| GPR124 | 0.01752403 | 0.019908 |
| GPR125 | 0.00461082 | 0 |
| GPR126 | 0.03624536 | 0.030881 |
| GPR128 | 0 | 0 |
| GPR132 | 37.3610185 | 45.19515 |
| GPR133 | 0.0078074 | 0.004435 |
| GPR135 | 0.08086666 | 0.039371 |
| GPR137 | 4.40934073 | 3.579936 |
| GPR137B | 41.9065118 | 47.29065 |
| GPR137C | 0.021631 | 0.043003 |
| GPR139 | 0 | 0 |
| GPR141 | 1.87807967 | 0.676485 |
| GPR142 | 0 | 0 |
| GPR143 | 0.03925077 | 0.089179 |
| GPR143P | 0 | 0 |
| GPR144 | 0 | 0.016518 |
| GPR146 | 0 | 0 |
| GPR148 | 0.017713 | 0 |
| GPR149 | 0.00905094 | 0.020564 |
| GPR15 | 0.03882794 | 0.044109 |
| GPR150 | 0.01611136 | 0 |
| GPR151 | 0 | 0 |
| GPR152 | 0.19127313 | 0.417864 |
| GPR153 | 19.1081275 | 34.03991 |

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| GPR155 | 0.04220259 | 0.051139 |
| GPR156 | 0.00859932 | 0 |
| GPR157 | 0.12764728 | 0.186441 |
| GPR158 | 0.00631107 | 0.007169 |
| GPR160 | 122.74868 | 125.3435 |
| GPR161 | 0.015714 | 0.008926 |
| GPR162 | 0.02506995 | 0.009493 |
| GPR165P | 0 | 0 |
| GPR166P | 0 | 0 |
| GPR17 | 0 | 0 |
| GPR171 | 0.07027966 | 0 |
| GPR172A | 7.47494997 | 6.729241 |
| GPR172B | 0 | 0 |
| GPR173 | 0.04952964 | 0.014067 |
| GPR174 | 3.34265993 | 0.892369 |
| GPR175 | 14.6551849 | 14.8667 |
| GPR176 | 1.09009173 | 1.178988 |
| GPR177 | 0.01378258 | 0.007829 |
| GPR179 | 0 | 0 |
| GPR18 | 0.01265824 | 0 |
| GPR180 | 0.3538174 | 0.408032 |
| GPR182 | 0.02678386 | 0.060854 |
| GPR183 | 5.52430264 | 4.710117 |
| GPR19 | 0.06031363 | 0.027407 |
| GPR20 | 0 | 0 |
| GPR21 | 0 | 0 |
| GPR22 | 0 | 0 |
| GPR25 | 0 | 0.109968 |
| GPR26 | 0.00408021 | 0 |
| GPR27 | 1.26748449 | 1.418708 |
| GPR3 | 0.07967913 | 0.113146 |
| GPR31 | 0 | 0.02488 |
| GPR32 | 0.01963149 | 0 |
| GPR32P | 0 | 0 |
| GPR33 | 0 | 0 |
| GPR34 | 11.9521591 | 14.13533 |
| GPR35 | 12.0433096 | 16.39474 |
| GPR37 | 0.00710796 | 0.016149 |
| GPR37L1 | 0.01710072 | 0.019427 |
| GPR39 | 0.4173763 | 0.321742 |
| GPR4 | 0.01379615 | 0.007836 |
| GPR42P | 0 | 0 |
| GPR44 | 222.76013 | 194.8237 |
| GPR45 | 0.0121886 | 0.027693 |
| GPR50 | 0.01046036 | 0 |
| GPR52 | 0 | 0 |
| GPR53P | 0 | 0 |

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| GPR55 | 0 | 0.043677 |
| GPR56 | 0.92602206 | 1.404388 |
| GPR6 | 0 | 0 |
| GPR61 | 0.05958294 | 0.033844 |
| GPR62 | 0.00959623 | 0.032704 |
| GPR63 | 0 | 0 |
| GPR64 | 0.02641926 | 0.015006 |
| GPR65 | 77.9159927 | 37.92476 |
| GPR68 | 0.06724519 | 0.195223 |
| GPR75 | 1.74962565 | 1.332597 |
| GPR77 | 2.64654516 | 1.558935 |
| GPR78 | 0 | 0.012306 |
| GPR79 | 0 | 0 |
| GPR81 | 0 | 0.008023 |
| GPR82 | 4.75679474 | 4.760082 |
| GPR83 | 0.029461 | 0.066936 |
| GPR84 | 0.26685457 | 0.095732 |
| GPR85 | 0.00426218 | 0 |
| GPR87 | 0 | 0 |
| GPR88 | 0.0364075 | 0.013786 |
| GPR89A | 6.50027856 | 5.255686 |
| GPR89B | 2.05682585 | 2.246284 |
| GPR89C | 0.28140978 | 0.076116 |
| GPR89P | 0 | 0 |
| GPR97 | 604.351607 | 616.9121 |
| GPR98 | 0.00326261 | 0.002471 |
| GPRASP1 | 1.8134392 | 1.596074 |
| GPRASP2 | 0.09417841 | 0.060181 |
| GPRC5A | 0 | 0 |
| GPRC5B | 0 | 0 |
| GPRC5C | 0 | 0 |
| GPRC5D | 0 | 0.046021 |
| GPRC6A | 0 | 0 |
| GPRIN1 | 0.16488496 | 0.170284 |
| GPRIN2 | 0 | 0.013102 |
| GPRIN3 | 0.01324013 | 0.030082 |
| GPS1 | 11.7560032 | 11.50211 |
| GPS2 | 57.3880684 | 57.1426 |
| GPSM1 | 0.11961895 | 0.167248 |
| GPSM2 | 2.01033497 | 1.606516 |
| GPSM3 | 262.065732 | 242.903 |
| GPSN2 | 5.47779474 | 4.045887 |
| GPT | 0.02229622 | 0.037993 |
| GPT2 | 0.59416157 | 1.270545 |
| GPX1 | 179.09743 | 188.9003 |
| GPX2 | 0.31728367 | 0.192234 |
| GPX3 | 4.82352851 | 5.628802 |

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| GPX4 | 41.7746937 | 53.13898 |
| GPX5 | 0 | 0 |
| GPX6 | 0 | 0.013952 |
| GPX7 | 11.617909 | 15.70928 |
| GPX8 | 0 | 0 |
| GPXP2 | 0 | 0 |
| GRAMD1A | 28.0178463 | 31.74729 |
| GRAMD1B | 7.47042726 | 8.598985 |
| GRAMD1C | 0.00559036 | 0 |
| GRAMD2 | 0.0063868 | 0 |
| GRAMD3 | 0.02171291 | 0.008222 |
| GRAMD4 | 20.6404836 | 24.18395 |
| GRAP | 0.24820853 | 0.387707 |
| GRAP2 | 0.20320874 | 0.138509 |
| GRASP | 15.2683951 | 41.47751 |
| GRB10 | 14.2347389 | 19.12257 |
| GRB14 | 0.01761653 | 0 |
| GRB2 | 150.709114 | 139.725 |
| GRB7 | 0.00916935 | 0.020833 |
| GREB1 | 0.01016699 | 0.00231 |
| GREM1 | 0.00508595 | 0.011555 |
| GREM2 | 0.00502638 | 0.00571 |
| GRHL1 | 6.68827092 | 7.464097 |
| GRHL2 | 0.00401937 | 0 |
| GRHL3 | 0.06574982 | 0.049795 |
| GRHPR | 4.7498521 | 4.893063 |
| GRIA1 | 0.00359715 | 0.004086 |
| GRIA2 | 0.00716366 | 0.008138 |
| GRIA3 | 0.00396929 | 0.004509 |
| GRIA4 | 0.00554027 | 0.012588 |
| GRID1 | 0.38463163 | 0.477784 |
| GRID2 | 0 | 0 |
| GRID2IP | 0.04993062 | 0.020626 |
| GRIFIN | 0 | 0 |
| GRIK1 | 0.06277922 | 0.058351 |
| GRIK2 | 0.00453621 | 0.005153 |
| GRIK3 | 0.00228065 | 0.005182 |
| GRIK4 | 0.00732335 | 0.008319 |
| GRIK5 | 0.14302946 | 0.176024 |
| GRIN1 | 0.00480469 | 0.005458 |
| GRIN2A | 0.00568829 | 0 |
| GRIN2B | 0 | 0 |
| GRIN2C | 0.51774384 | 0.532149 |
| GRIN2D | 0.03715452 | 0.018759 |
| GRIN3A | 0.29491199 | 0.270479 |
| GRIN3B | 0.1615345 | 0.117444 |
| GRINA | 15.4164393 | 22.16169 |

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|----------------|------------|----------|
| GRINL1A | 1.98371422 | 2.131875 |
| GRINL1B | 0 | 0 |
| GRIP1 | 0.0666413 | 0.037853 |
| GRIP2 | 0.00613699 | 0 |
| GRIPAP1 | 29.9907599 | 31.52511 |
| GRK1 (NC_00001 | 0 | 0.042882 |
| GRK1 (NC_00001 | 0.04171693 | 0.023696 |
| GRK4 | 0.18172283 | 0.134186 |
| GRK5 | 21.1897198 | 23.38089 |
| GRK6 | 45.8971779 | 43.104 |
| GRK6PS | 0 | 0 |
| GRK7 | 0.036126 | 0.05472 |
| GRLF1 | 5.21080033 | 4.672765 |
| GRM1 | 0.00909007 | 0.003442 |
| GRM2 | 0.16274445 | 0.149326 |
| GRM3 | 0 | 0 |
| GRM4 | 0.01626089 | 0.006158 |
| GRM5 | 0.00522628 | 0 |
| GRM6 | 0.00342265 | 0 |
| GRM7 | 0 | 0 |
| GRM8 | 0 | 0 |
| GRN | 72.3435574 | 120.8245 |
| GRP | 0 | 0 |
| GRPEL1 | 16.5798155 | 14.88055 |
| GRPEL2 | 1.59802759 | 2.094675 |
| GRPR | 0.14116224 | 0.160363 |
| GRRP1 | 0 | 0 |
| GRSF1 | 2.36129699 | 2.189063 |
| GRTP1 | 0.13458604 | 0.101928 |
| GRWD1 | 0.80129679 | 0.623348 |
| GRXCR1 | 0 | 0 |
| GRXCR2 | 0 | 0 |
| GS85 | 0 | 0.01244 |
| GSC | 0.03536641 | 0 |
| GSC2 | 0 | 0.038649 |
| GSDMA | 0.00971596 | 0 |
| GSDMB | 18.1744386 | 17.00296 |
| GSDMC | 0.02324097 | 0 |
| GSDMD | 36.8996364 | 41.86388 |
| GSG1 | 0 | 0 |
| GSG1L | 0.01675325 | 0 |
| GSG2 | 0 | 0 |
| GSK3A | 31.5331719 | 31.01008 |
| GSK3B | 16.7840588 | 16.26126 |
| GSN | 88.8708373 | 88.30615 |
| GSPT1 | 7.52681966 | 8.13888 |
| GSPT2 | 0.19921356 | 0.141444 |

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| GSR | 21.7131623 | 18.95392 |
| GSS | 4.08334059 | 4.337033 |
| GSTA1 | 0 | 0 |
| GSTA2 | 0 | 0 |
| GSTA3 | 0.0229785 | 0 |
| GSTA4 | 0 | 0 |
| GSTA4P | 0 | 0 |
| GSTA5 | 0 | 0 |
| GSTAP1 | 0 | 0 |
| GSTCD | 0.33795021 | 0.197443 |
| GSTK1 | 39.7011755 | 36.64591 |
| GSTM1 | 0.79843029 | 0.403124 |
| GSTM1L | 0 | 0 |
| GSTM2 | 87.0602901 | 91.24396 |
| GSTM3 | 1.21251 | 1.047542 |
| GSTM3P | 0 | 0 |
| GSTM4 | 16.7807806 | 17.38118 |
| GSTM5 | 0 | 0.030427 |
| GSTO1 | 59.8454683 | 88.62874 |
| GSTO2 | 0.1407318 | 0.175861 |
| GSTO3P1 | 0 | 0 |
| GSTP1 | 11.4783383 | 11.7431 |
| GSTPP | 0 | 0 |
| GSTT1 | 0 | 0 |
| GSTT2 | 0.01878939 | 0.04269 |
| GSTT2B | 0.03843753 | 0 |
| GSTTP1 | 0 | 0 |
| GSTTP2 | 0 | 0 |
| GSTZ1 | 0.63491127 | 0.457729 |
| GSX1 | 0 | 0.056399 |
| GSX2 | 0 | 0.019707 |
| GTDC1 | 6.56033345 | 5.855648 |
| GTF2A1 | 10.6859512 | 11.06327 |
| GTF2A1L | 0 | 0 |
| GTF2A2 | 4.9838806 | 3.623531 |
| GTF2B | 16.4240427 | 17.71418 |
| GTF2E1 | 4.69309234 | 4.158041 |
| GTF2E2 | 5.91337433 | 5.598073 |
| GTF2F1 | 17.6296287 | 17.06882 |
| GTF2F2 | 8.15563044 | 6.784422 |
| GTF2F2L | 0 | 0 |
| GTF2H1 | 9.34326229 | 8.901705 |
| GTF2H2 | 1.33631012 | 0.795762 |
| GTF2H2B | 0.85591625 | 0.720671 |
| GTF2H2C | 0.22962137 | 0.15878 |
| GTF2H2D | 0.57140389 | 0.967062 |
| GTF2H3 | 2.52862784 | 2.444058 |

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| GTF2H4 | 1.9481513 | 1.851235 |
| GTF2H5 | 5.47876107 | 4.52168 |
| GTF2I | 147.135535 | 157.3232 |
| GTF2IP1 | 0 | 0 |
| GTF2IRD1 | 0.17163535 | 0.118381 |
| GTF2IRD2 | 13.4701853 | 15.5714 |
| GTF2IRD2B | 9.85287476 | 8.208216 |
| GTF2IRD2P | 0 | 0 |
| GTF3A | 42.0806125 | 38.1073 |
| GTF3C1 | 9.12073946 | 8.580088 |
| GTF3C2 | 19.5610668 | 19.32135 |
| GTF3C3 | 4.98796994 | 4.544512 |
| GTF3C4 | 2.57242151 | 2.230348 |
| GTF3C5 | 21.6541098 | 20.40166 |
| GTF3C6 | 5.46658605 | 4.047897 |
| GTPBP1 | 88.2755623 | 102.5257 |
| GTPBP10 | 2.41557144 | 2.296107 |
| GTPBP2 | 35.2045488 | 30.28334 |
| GTPBP3 | 0.48071409 | 0.411812 |
| GTPBP4 | 2.57282556 | 2.258505 |
| GTPBP5 | 6.55927585 | 6.495713 |
| GTPBP6 | 0.65926885 | 0.404832 |
| GTPBP8 | 4.55523014 | 3.50268 |
| GTSE1 | 0.01830279 | 0.088367 |
| GTSF1 | 0.36250571 | 0.411812 |
| GTSF1L | 0.14982421 | 0.255304 |
| GUCA1A | 0 | 0 |
| GUCA1B | 1.19483158 | 1.315259 |
| GUCA1C | 0 | 0 |
| GUCA2A | 0 | 0 |
| GUCA2B | 0 | 0 |
| GUCY1A2 | 0.00711758 | 0 |
| GUCY1A3 | 0.00832274 | 0.002364 |
| GUCY1B2 | 0 | 0 |
| GUCY1B3 | 0.01294265 | 0 |
| GUCY2C | 0 | 0 |
| GUCY2D | 0.00580329 | 0.013185 |
| GUCY2E | 0 | 0 |
| GUCY2F | 0.01137119 | 0 |
| GUCY2G | 0 | 0 |
| GUF1 | 2.78276439 | 2.237813 |
| GUK1 | 79.8503006 | 81.68359 |
| GULOP | 0 | 0 |
| GULP1 | 0 | 0.006921 |
| GUSB | 64.9022466 | 56.17522 |
| GUSBL1 | 0 | 0 |
| GUSBL2 | 0 | 0 |

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| GUSBP1 | 0 | 0 |
| GVIN1 | 0 | 0 |
| GYG1 | 17.2279582 | 15.64111 |
| GYG2 | 0 | 0.014071 |
| GYG2P1 | 0 | 0 |
| GYLTL1B | 0.05821888 | 0.009448 |
| GYPA | 0 | 0 |
| GYPB | 0 | 0 |
| GYPC | 0.43189289 | 0.289922 |
| GYPE | 0 | 0.025356 |
| GYS1 | 7.11681149 | 9.340508 |
| GYS2 | 0 | 0.007626 |
| GZF1 | 6.05348592 | 10.74603 |
| GZMA | 0.02346577 | 0 |
| GZMB | 0.476302 | 0.283426 |
| GZMH | 0 | 0.158881 |
| GZMK | 0.0603598 | 0.06857 |
| GZMM | 0.55505098 | 0.756656 |
| H19 | 0 | 0 |
| H1F0 | 7.20095026 | 7.442313 |
| H1FNT | 0.08086666 | 0.146985 |
| H1FOO | 0 | 0.022385 |
| H1FX | 74.8406658 | 70.79718 |
| H2AFB1 | 0 | 0 |
| H2AFB2 | 0 | 0.068635 |
| H2AFB3 | 0.12200385 | 0 |
| H2AFJ | 0.67657187 | 0.742542 |
| H2AFV | 25.9732564 | 27.59177 |
| H2AFVP | 0 | 0 |
| H2AFX | 14.3510415 | 18.47575 |
| H2AFY | 39.9910775 | 39.4315 |
| H2AFY2 | 0.00964907 | 0.010962 |
| H2AFZ | 120.290647 | 98.71839 |
| H2AFZP | 0 | 0 |
| H2AFZP2 | 0 | 0 |
| H2BFM | 0 | 0 |
| H2BFO | 0 | 0 |
| H2BFS | 0 | 0 |
| H2BFWT | 0 | 0 |
| H2BFXP | 0 | 0 |
| H3F3A | 700.129491 | 758.3807 |
| H3F3AP1 | 0 | 0 |
| H3F3AP2 | 0 | 0 |
| H3F3B | 251.145829 | 281.3586 |
| H6PD | 4.80835966 | 5.543588 |
| HAAO | 3.17672446 | 2.511285 |
| HABP2 | 0 | 0.007912 |

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| HABP4 | 0.83694584 | 0.675323 |
| HACE1 | 1.38759833 | 1.148323 |
| HACL1 | 6.63903308 | 5.000577 |
| HADH | 1.41855005 | 1.086822 |
| HADHA | 17.9168774 | 16.05973 |
| HADHAP | 0 | 0 |
| HADHB | 17.9407189 | 16.13446 |
| HAGH | 15.8277647 | 15.69593 |
| HAGHL | 1.35463692 | 1.75873 |
| HAL | 0.34830112 | 0.388066 |
| HAMP | 0 | 0 |
| HAND1 | 0.01209743 | 0 |
| HAND2 | 0.01775788 | 0.010087 |
| HAO1 | 0 | 0.01368 |
| HAO2 | 0 | 0 |
| HAP1 | 0.00531211 | 0.012069 |
| HAPLN1 | 0 | 0 |
| HAPLN2 | 0 | 0.026974 |
| HAPLN3 | 0.02221377 | 0.088323 |
| HAPLN4 | 0 | 0 |
| HAR1A | 0 | 0 |
| HAR1B | 0 | 0 |
| HARBI1 | 1.49194201 | 1.506551 |
| HARS | 15.1802033 | 15.29912 |
| HARS2 | 26.5983103 | 23.31916 |
| HAS1 | 2.74024438 | 1.464923 |
| HAS2 | 0 | 0.007293 |
| HAS2AS | 0 | 0 |
| HAS3 | 0.16295197 | 0.149121 |
| HAT1 | 11.5786127 | 10.52859 |
| HAUS1 | 5.13952535 | 5.647501 |
| HAUS2 | 1.72635764 | 1.616149 |
| HAUS3 | 3.89719527 | 3.365241 |
| HAUS4 | 4.27344125 | 4.346821 |
| HAUS5 | 0.99051803 | 0.953409 |
| HAUS6 | 4.18444334 | 3.914724 |
| HAUS7 | 1.50180935 | 1.349354 |
| HAUS8 | 6.38268976 | 4.133961 |
| HAVCR1 | 0.04568241 | 0.012974 |
| HAVCR2 | 1.19626883 | 1.935517 |
| HAX1 | 33.4794844 | 30.14606 |
| HBA1 | 1.78861322 | 1.866024 |
| HBA2 | 4.761108 | 5.171817 |
| HBB | 3.89606772 | 3.929978 |
| HBBP1 | 0 | 0 |
| HBCBP | 0 | 0 |
| HBD | 0 | 0 |

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|------------|------------|----------|
| HBE1 | 0.02576634 | 0.029271 |
| HBEGF | 0.04458297 | 0.070906 |
| HBG1 | 0 | 0 |
| HBG2 | 0.03606403 | 0 |
| HBII-52-24 | 0 | 0 |
| HBII-52-27 | 0 | 0 |
| HBII-52-28 | 0 | 0 |
| HBII-52-45 | 0 | 0 |
| HBII-52-46 | 0 | 0 |
| HBM | 0 | 0 |
| HBP1 | 55.5547363 | 52.73467 |
| HBQ1 | 0 | 0 |
| HBS1L | 1.81349956 | 1.515052 |
| HBXIP | 55.952116 | 37.96327 |
| HBZ | 0 | 0 |
| HBZP | 0 | 0 |
| HCCA2 | 18.25884 | 18.55088 |
| HCCS | 5.02311661 | 5.370074 |
| HCFC1 | 9.2799912 | 10.05748 |
| HCFC1R1 | 2.85944501 | 2.364626 |
| HCFC2 | 2.02441701 | 1.562344 |
| HCG11 | 0 | 0 |
| HCG18 | 0 | 0 |
| HCG22 | 0 | 0 |
| HCG26 | 0 | 0 |
| HCG27 | 0 | 0 |
| HCG2P6 | 0 | 0 |
| HCG2P7 | 0 | 0 |
| HCG2P8 | 0 | 0 |
| HCG4 | 0 | 0 |
| HCG4P10 | 0 | 0 |
| HCG4P11 | 0 | 0 |
| HCG4P3 | 0 | 0 |
| HCG4P4 | 0 | 0 |
| HCG4P5 | 0 | 0 |
| HCG4P6 | 0 | 0 |
| HCG4P7 | 0 | 0 |
| HCG4P9 | 0 | 0 |
| HCG9 | 0.06439611 | 0.036578 |
| HCG9P5 | 0 | 0 |
| HCK | 169.380227 | 163.4569 |
| HCLS1 | 427.487484 | 461.3245 |
| HCN1 | 0.00391606 | 0.004449 |
| HCN2 | 0.52439939 | 1.254529 |
| HCN3 | 0.2262613 | 0.192777 |
| HCN4 | 0.00581775 | 0.006609 |
| HCP5 | 27.8090896 | 24.36615 |

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|---------|------------|----------|
| HCP5P12 | 0 | 0 |
| HCP5P13 | 0 | 0 |
| HCP5P14 | 0 | 0 |
| HCP5P15 | 0 | 0 |
| HCP5P2 | 0 | 0 |
| HCP5P3 | 0 | 0 |
| HCP5P6 | 0 | 0 |
| HCP9 | 0 | 0 |
| HCRP1 | 0 | 0 |
| HCRT | 0 | 0.124186 |
| HCRTR1 | 0.03152224 | 0.03581 |
| HCRTR2 | 0.01157783 | 0 |
| HCST | 25.7943903 | 34.34368 |
| HDAC1 | 98.36959 | 99.94964 |
| HDAC10 | 22.2929542 | 21.28059 |
| HDAC11 | 0.36250571 | 0.123544 |
| HDAC2 | 4.41705975 | 4.20191 |
| HDAC3 | 13.9340111 | 11.00311 |
| HDAC4 | 2.82726988 | 2.618421 |
| HDAC5 | 24.0013211 | 25.54411 |
| HDAC6 | 15.4394355 | 13.55374 |
| HDAC7 | 26.666393 | 34.27986 |
| HDAC8 | 3.00537111 | 2.327196 |
| HDAC9 | 0.00878129 | 0.009976 |
| HDC | 0.74217323 | 0.803444 |
| HDDC2 | 0.950371 | 1.005689 |
| HDDC3 | 0.24143921 | 0.114283 |
| HDGF | 46.7772285 | 45.22634 |
| HDGF2 | 13.5982011 | 14.43446 |
| HDGFL1 | 0 | 0 |
| HDGFP | 0 | 0 |
| HDGFRP3 | 1.68373152 | 2.251713 |
| HDHD1A | 1.92264231 | 1.924649 |
| HDHD1CP | 0 | 0 |
| HDHD1P1 | 0 | 0 |
| HDHD2 | 1.54923491 | 1.552259 |
| HDHD3 | 4.99672305 | 4.288494 |
| HDLBP | 12.8393168 | 11.31684 |
| HDX | 0.0146518 | 0.008322 |
| HEATR1 | 2.13008801 | 2.046994 |
| HEATR2 | 0.97921137 | 0.776581 |
| HEATR3 | 1.60192998 | 1.555944 |
| HEATR4 | 0.1818276 | 0.22033 |
| HEATR5A | 8.56837437 | 6.535657 |
| HEATR5B | 9.47873431 | 6.551525 |
| HEATR6 | 2.47388265 | 1.778485 |
| HEATR7A | 6.27697113 | 6.823732 |

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| HEATR7B1 | 0.00794158 | 0.013533 |
| HEATR7B2 | 0.01194621 | 0 |
| HEBP1 | 0.797085 | 0.62379 |
| HEBP2 | 20.0741069 | 18.33303 |
| HECA | 36.4735816 | 41.70227 |
| HECTD1 | 19.3587731 | 18.63687 |
| HECTD2 | 0.01441078 | 0 |
| HECTD3 | 11.3877551 | 9.414473 |
| HECW1 | 0.00922298 | 0.003492 |
| HECW2 | 0.05464279 | 0.017243 |
| HEG1 | 0.02296345 | 0.028696 |
| HEJ1 | 0 | 0 |
| HELB | 2.19117909 | 1.007033 |
| HELLS | 0.03392277 | 0.015415 |
| HELQ | 5.27974625 | 5.106839 |
| HELT | 0 | 0.024273 |
| HELZ | 8.39340942 | 7.443588 |
| HEMGN | 0.01876424 | 0 |
| HEMK1 | 1.36295219 | 1.104208 |
| HEPACAM | 0.01185862 | 0.013472 |
| HEPACAM2 | 0 | 0 |
| HEPH | 0.14591118 | 0.128328 |
| HEPHL1 | 0.00353308 | 0.008027 |
| HEPN1 | 0.02944724 | 0 |
| HERC1 | 25.7237599 | 24.83599 |
| HERC2 | 3.12761053 | 2.367638 |
| HERC2P2 | 0 | 0 |
| HERC2P3 | 0 | 0 |
| HERC2P4 | 0 | 0 |
| HERC2P5 | 0 | 0 |
| HERC2P6 | 0 | 0 |
| HERC2P7 | 0 | 0 |
| HERC3 | 39.8596283 | 39.20008 |
| HERC4 | 4.42663045 | 4.055762 |
| HERC5 | 2.42392799 | 2.311682 |
| HERC6 | 3.48710169 | 3.095422 |
| HERPUD1 | 22.6002983 | 22.44717 |
| HERPUD2 | 36.9803142 | 45.9815 |
| HERV-FRD | 0 | 0 |
| HES1 | 22.9788201 | 47.70446 |
| HES2 | 0.00493321 | 0.005604 |
| HES3 | 0.03060456 | 0 |
| HES4 | 34.5098461 | 41.59224 |
| HES5 | 0.03219806 | 0.018289 |
| HES6 | 15.4543856 | 26.06441 |
| HES7 | 0.01658149 | 0 |
| HESRG | 0 | 0 |

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|--------|------------|----------|
| HESX1 | 0 | 0.08145 |
| HEXA | 26.2277415 | 26.12955 |
| HEXB | 33.9325173 | 34.26338 |
| HEXDC | 4.5040763 | 4.751223 |
| HEXIM1 | 21.051695 | 19.67215 |
| HEXIM2 | 2.81391647 | 2.96319 |
| HEY1 | 0.10033781 | 0.632101 |
| HEY2 | 0.02360628 | 0.098329 |
| HEYL | 0.01022136 | 0.005806 |
| HFE | 0.02838704 | 0.010749 |
| HFE2 | 0.00949225 | 0.021567 |
| HFM1 | 0.00426391 | 0.009688 |
| HGC6.3 | 0 | 0.023509 |
| HGD | 0.04380277 | 0.02488 |
| HGF | 0.24539369 | 0.189564 |
| HGFAC | 0.01031665 | 0.03516 |
| HGS | 41.6100761 | 42.58458 |
| HGSNAT | 29.8201616 | 31.55363 |
| HHAT | 0.04492592 | 0.063796 |
| HHATL | 0.01201447 | 0 |
| HHEX | 33.0141922 | 42.58312 |
| HHIP | 0.01191237 | 0 |
| HHIPL1 | 0.00538421 | 0.006117 |
| HHIPL2 | 0 | 0.018559 |
| HHLA1 | 0 | 0 |
| HHLA2 | 0 | 0 |
| HHLA3 | 0.11680739 | 0.053078 |
| HIAT1 | 19.560484 | 19.71584 |
| HIATL1 | 15.1027923 | 15.68682 |
| HIATL2 | 0 | 0 |
| HIBADH | 1.07358869 | 0.7849 |
| HIBCH | 2.24010475 | 1.756461 |
| HIC1 | 42.0572447 | 54.18644 |
| HIC2 | 1.45674182 | 1.331635 |
| HIF1A | 193.423721 | 177.7349 |
| HIF1AN | 24.5538877 | 22.79314 |
| HIF3A | 0.01394253 | 0.00396 |
| HIGD1A | 7.77008139 | 7.325809 |
| HIGD1B | 0.16901391 | 0.0384 |
| HIGD1C | 0.14302946 | 0.081242 |
| HIGD1D | 0 | 0 |
| HIGD2A | 15.62275 | 14.46398 |
| HIGD2B | 0 | 0 |
| HILS1 | 0 | 0 |
| HIN1L | 0 | 0 |
| HINFP | 11.0611524 | 11.49601 |
| HINT1 | 19.1163815 | 14.87474 |

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| HINT2 | 0.29022696 | 0.40297 |
| HINT3 | 5.11948147 | 4.480225 |
| HINTP1 | 0 | 0 |
| HIP1 | 54.8999594 | 43.46767 |
| HIP1R | 43.3856036 | 51.7217 |
| HIPK1 | 42.2975786 | 39.64985 |
| HIPK2 | 7.69285804 | 4.946722 |
| HIPK3 | 15.1650131 | 13.60691 |
| HIPK4 | 0.07717291 | 0.048705 |
| HIRA | 33.583945 | 31.17028 |
| HIRIP3 | 2.12585471 | 1.630383 |
| HISPPD1 | 11.6254434 | 8.543642 |
| HISPPD2A | 0.86121732 | 0.722415 |
| HISPPD2B | 0 | 0 |
| HIST1H1A | 0 | 0 |
| HIST1H1B | 0 | 0 |
| HIST1H1C | 28.2922828 | 28.81223 |
| HIST1H1D | 0 | 0.03074 |
| HIST1H1E | 0.02678386 | 0 |
| HIST1H1PS2 | 0 | 0 |
| HIST1H1T | 0 | 0 |
| HIST1H2AA | 0 | 0 |
| HIST1H2AB | 0 | 0 |
| HIST1H2AC | 3.85079322 | 3.49965 |
| HIST1H2AD | 0 | 0.051924 |
| HIST1H2AE | 0.14911582 | 0.169398 |
| HIST1H2AG | 0.02802132 | 0.031833 |
| HIST1H2AH | 0 | 0.108816 |
| HIST1H2AI | 0.04483013 | 0.050928 |
| HIST1H2AJ | 0 | 0 |
| HIST1H2AK | 0.18282896 | 0 |
| HIST1H2AL | 0 | 0.101639 |
| HIST1H2AM | 0.04317316 | 0 |
| HIST1H2APS2 | 0 | 0 |
| HIST1H2APS4 | 0 | 0 |
| HIST1H2APS5 | 0 | 0 |
| HIST1H2BA | 0 | 0 |
| HIST1H2BB | 0 | 0 |
| HIST1H2BC | 1.05606685 | 0.817983 |
| HIST1H2BD | 0.30437562 | 0.452168 |
| HIST1H2BE | 0 | 0.054908 |
| HIST1H2BF | 0.09779224 | 0 |
| HIST1H2BG | 0.04724793 | 0.053674 |
| HIST1H2BH | 0.1484141 | 0.168601 |
| HIST1H2BI | 0 | 0 |
| HIST1H2BJ | 0.13113512 | 0.198629 |
| HIST1H2BK | 24.5380997 | 22.54521 |

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| HIST1H2BL | 0 | 0.15818 |
| HIST1H2BM | 0 | 0 |
| HIST1H2BN | 0.42144316 | 0.106392 |
| HIST1H2BO | 0 | 0 |
| HIST1H2BPS2 | 0 | 0 |
| HIST1H3A | 0.04483013 | 0 |
| HIST1H3B | 0.04454519 | 0 |
| HIST1H3C | 0 | 0.104075 |
| HIST1H3D | 0.04866975 | 0.138224 |
| HIST1H3E | 0 | 0 |
| HIST1H3F | 0 | 0 |
| HIST1H3G | 0 | 0 |
| HIST1H3H | 0.04445102 | 0 |
| HIST1H3I | 0 | 0 |
| HIST1H3J | 0 | 0 |
| HIST1H4A | 0 | 0 |
| HIST1H4B | 0 | 0 |
| HIST1H4C | 0.05391111 | 0.061244 |
| HIST1H4D | 0 | 0 |
| HIST1H4E | 0 | 0.126711 |
| HIST1H4F | 0.05713405 | 0 |
| HIST1H4G | 0 | 0 |
| HIST1H4H | 0.39352224 | 0.383184 |
| HIST1H4I | 0 | 0 |
| HIST1H4J | 0.6496591 | 0.805116 |
| HIST1H4K | 1.42544617 | 0.877137 |
| HIST1H4L | 0 | 0 |
| HIST1H4PS1 | 0 | 0 |
| HIST2H2AA3 | 5.55163233 | 5.099068 |
| HIST2H2AA4 | 5.31539266 | 5.72527 |
| HIST2H2AB | 0.3285208 | 0 |
| HIST2H2AC | 3.36790198 | 3.607362 |
| HIST2H2BB | 0 | 0 |
| HIST2H2BC | 0 | 0 |
| HIST2H2BD | 0 | 0 |
| HIST2H2BE | 1.06876401 | 0.988498 |
| HIST2H2BF | 0.28080576 | 0.212667 |
| HIST2H3A | 0.04147008 | 0.047111 |
| HIST2H3C | 0.12441024 | 0.047111 |
| HIST2H3D | 0.10231305 | 0 |
| HIST2H3PS2 | 0 | 0 |
| HIST2H4A | 0.63713124 | 0.30158 |
| HIST2H4B | 0.69022551 | 0.361896 |
| HIST3H2A | 0.16955912 | 0 |
| HIST3H2BA | 0 | 0 |
| HIST3H2BB | 0.04651622 | 0.052843 |
| HIST3H3 | 0 | 0 |

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| HIST4H4 | 0.40825885 | 0.347841 |
| HIVEP1 | 5.425739 | 5.466605 |
| HIVEP2 | 1.06164516 | 1.331317 |
| HIVEP3 | 0.08768454 | 0.191145 |
| HJURP | 0.04825486 | 0.023494 |
| HK1 | 26.9618373 | 28.83031 |
| HK2 | 86.6624244 | 79.68662 |
| HK2P | 0 | 0 |
| HK3 | 63.0622867 | 62.35197 |
| HKDC1 | 0.01139893 | 0 |
| HKR1 | 4.0988269 | 3.563603 |
| HLA-A | 2036.99493 | 2091.817 |
| HLA-B | 2820.5107 | 2792.279 |
| HLA-C | 3747.77558 | 3773.644 |
| HLA-DMA | 13.2298428 | 10.64399 |
| HLA-DMB | 13.1601851 | 8.917342 |
| HLA-DOA | 0.08446331 | 0.095952 |
| HLA-DOB | 2.78907452 | 3.742929 |
| HLA-DPA1 | 17.6998032 | 14.22372 |
| HLA-DPA2 | 0 | 0 |
| HLA-DPA3 | 0 | 0 |
| HLA-DPB1 | 16.0106284 | 13.62135 |
| HLA-DPB2 | 0 | 0 |
| HLA-DQA1 | 0.9408222 | 0.898402 |
| HLA-DQA2 | 0.15993523 | 0.195665 |
| HLA-DQB1 | 3.14349311 | 3.063695 |
| HLA-DQB2 | 0 | 0 |
| HLA-DRA | 349.084309 | 321.3043 |
| HLA-DRB1 | 28.4004256 | 25.29855 |
| HLA-DRB5 | 7.37951411 | 8.587217 |
| HLA-DRB6 | 0 | 0 |
| HLA-DRB9 | 0 | 0 |
| HLA-E | 1408.523 | 1417.065 |
| HLA-F | 199.406319 | 186.1294 |
| HLA-G | 60.1980008 | 61.84699 |
| HLA-H | 0 | 0 |
| HLA-J | 0 | 0 |
| HLA-K | 0 | 0 |
| HLA-L | 0 | 0 |
| HLA-N | 0 | 0 |
| HLA-P | 0 | 0 |
| HLA-S | 0 | 0 |
| HLA-T | 0 | 0 |
| HLA-U | 0 | 0 |
| HLA-V | 0 | 0 |
| HLA-W | 0 | 0 |
| HLA-X | 0 | 0 |

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| HLA-Z | 0 | 0 |
| HLCS | 0.36232376 | 0.455563 |
| HLF | 0.01126558 | 0.004266 |
| HLTF | 2.52256821 | 2.825504 |
| HLX | 6.35649541 | 0.838442 |
| HM13 | 5.4220232 | 4.40989 |
| HMBOX1 | 5.8629476 | 5.159944 |
| HMBS | 0.34144822 | 0.417728 |
| HMCN1 | 0.00692686 | 0.002623 |
| HMCN2 | 0.00924109 | 0.004199 |
| HMG20A | 4.78414223 | 4.186811 |
| HMG20B | 194.245387 | 182.2597 |
| HMGA1 | 46.9215303 | 77.62661 |
| HMGA1L1 | 0 | 0 |
| HMGA1L2 | 0 | 0 |
| HMGA1L3 | 0 | 0 |
| HMGA1L5 | 0 | 0 |
| HMGA2 | 0 | 0.010365 |
| HMGB1 | 86.3768191 | 102.6753 |
| HMGB1L1 | 0.99176089 | 0.751104 |
| HMGB1L10 | 0 | 0 |
| HMGB1L14 | 0 | 0 |
| HMGB1L3 | 0 | 0 |
| HMGB1L4 | 0 | 0 |
| HMGB1L5 | 0 | 0 |
| HMGB1L8 | 0 | 0 |
| HMGB1L9 | 0 | 0 |
| HMGB2 | 152.455909 | 154.1767 |
| HMGB3 | 1.30077976 | 1.544875 |
| HMGB3L1 | 0 | 0 |
| HMGB3L2 | 0 | 0 |
| HMGB4 | 0 | 0 |
| HMGCL | 5.85780365 | 4.753256 |
| HMGCLL1 | 0 | 0 |
| HMGCR | 5.48806107 | 4.321422 |
| HMGCS1 | 5.34318952 | 4.838266 |
| HMGCS2 | 0 | 0 |
| HMGN1 | 120.653797 | 182.4353 |
| HMGN1L1 | 0 | 0 |
| HMGN1L2 | 0 | 0 |
| HMGN2 | 123.194131 | 144.6814 |
| HMGN2L | 0 | 0 |
| HMGN2L1 | 0 | 0 |
| HMGN2L10 | 0 | 0 |
| HMGN2L11 | 0 | 0 |
| HMGN2L2 | 0 | 0 |
| HMGN2L3 | 0 | 0 |

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| HMG2L4 | 0 | 0 |
| HMG2L5 | 0 | 0 |
| HMG2L6 | 0 | 0 |
| HMG2L7 | 0 | 0 |
| HMG2L9 | 0 | 0 |
| HMG3 | 1.39255721 | 1.192959 |
| HMG4 | 18.6654538 | 15.85467 |
| HMGXB3 | 11.6208382 | 10.56117 |
| HMGXB4 | 5.53745346 | 4.905333 |
| HMHA1 | 183.513073 | 224.4102 |
| HMHB1 | 0 | 0 |
| HMMR | 0.0200815 | 0.05323 |
| HMOX1 | 3.05206417 | 6.379636 |
| HMOX2 | 16.9748484 | 13.89315 |
| HMP19 | 0.06303097 | 0.020458 |
| HMSD | 0 | 0 |
| HMX1 | 0.01108931 | 0 |
| HMX2 | 0.01291482 | 0 |
| HMX3 | 0.01957666 | 0.022239 |
| HN1 | 201.704413 | 268.7462 |
| HN1L | 2.86008439 | 2.153097 |
| HNF1A | 0.18175649 | 0.221227 |
| HNF1B | 0 | 0 |
| HNF4A | 0 | 0.006501 |
| HNF4G | 0 | 0 |
| HNMT | 0.00503239 | 0.011434 |
| HNRNPA0 | 83.2934749 | 66.99423 |
| HNRNPA1 | 65.5881103 | 55.89736 |
| HNRNPA1L1 | 0 | 0 |
| HNRNPA1L2 | 10.970511 | 10.78617 |
| hnRNPA1p | 0 | 0 |
| HNRNPA1P1 | 0 | 0 |
| HNRNPA1P2 | 0 | 0 |
| HNRNPA1P3 | 0 | 0 |
| HNRNPA1P4 | 0 | 0 |
| HNRNPA2B1 | 234.81126 | 229.8119 |
| HNRNPA3 | 33.7100348 | 32.38966 |
| HNRNPA3P1 | 0 | 0 |
| HNRNPA3P2 | 0 | 0 |
| HNRNPAB | 27.2310454 | 38.39242 |
| HNRNPC | 76.3364338 | 77.62661 |
| HNRNPCL1 | 0.05692779 | 0.043114 |
| HNRNPD | 88.6100789 | 84.18522 |
| HNRNPDP | 0 | 0 |
| HNRNPF | 44.9151994 | 39.39731 |
| HNRNPH1 | 166.837731 | 175.6177 |
| HNRNPH2 | 55.5286711 | 50.4631 |

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| HNRNPH3 | 60.3388644 | 55.14767 |
| HNRNPK | 164.71088 | 160.9139 |
| HNRNPL | 68.393191 | 60.29358 |
| HNRNPM | 35.7090303 | 35.15345 |
| HNRNPR | 25.4743247 | 23.6934 |
| HNRNPU | 43.8104508 | 41.77277 |
| HNRNPUL1 | 170.492051 | 174.9092 |
| HNRNPUL2 | 61.133894 | 56.03568 |
| HNRPA1L-2 | 0 | 0 |
| HNRPA1L3 | 0 | 0 |
| HNRPA1P5 | 0 | 0 |
| HNRPA1P6 | 0 | 0 |
| HNRPCP | 0 | 0 |
| HNRPDL | 40.6789238 | 35.75962 |
| HNRPLL | 4.9186112 | 4.415007 |
| HNRPUP | 0 | 0 |
| HOMER1 | 0.66359018 | 0.600812 |
| HOMER2 | 0.11663068 | 0.144539 |
| HOMER3 | 5.74807885 | 13.81238 |
| HOMEZ | 1.74227549 | 1.577017 |
| HOOK1 | 0.86169389 | 0.81167 |
| HOOK2 | 0.52361935 | 0.640597 |
| HOOK3 | 2.86550217 | 3.174205 |
| HOPX | 0.02217862 | 0.062988 |
| HORMAD1 | 0.15665494 | 0.190674 |
| HORMAD2 | 0.01109516 | 0 |
| HOTAIR | 0 | 0 |
| HOXA1 | 0.16496925 | 0.140556 |
| HOXA10 | 0.10568812 | 0.195103 |
| HOXA11 | 0 | 0.009003 |
| HOXA11AS | 0 | 0 |
| HOXA13 | 0 | 0 |
| HOXA2 | 0.17737906 | 0.161204 |
| HOXA3 | 0.04143506 | 0.020173 |
| HOXA4 | 0.20684643 | 0.124402 |
| HOXA5 | 0.01578478 | 0.017932 |
| HOXA6 | 0 | 0 |
| HOXA7 | 0.05209448 | 0.023672 |
| HOXA9 | 0.27597663 | 0.638639 |
| HOXB1 | 0.02073504 | 0 |
| HOXB13 | 0.00692078 | 0 |
| HOXB2 | 0.05243225 | 0 |
| HOXB3 | 0.02905657 | 0.013203 |
| HOXB4 | 0.02068404 | 0.023497 |
| HOXB5 | 0 | 0 |
| HOXB6 | 0 | 0.014251 |
| HOXB7 | 0.03076127 | 0 |

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| HOXB8 | 0 | 0 |
| HOXB9 | 0.00778428 | 0 |
| HOXC10 | 0.01072721 | 0 |
| HOXC11 | 0 | 0 |
| HOXC12 | 0 | 0 |
| HOXC13 | 0.01755036 | 0.009969 |
| HOXC4 | 0.01797037 | 0 |
| HOXC5 | 0 | 0 |
| HOXC6 | 0 | 0 |
| HOXC8 | 0.00918137 | 0 |
| HOXC9 | 0.0136351 | 0 |
| HOXD1 | 0.01064574 | 0.012094 |
| HOXD10 | 0.02330968 | 0.01324 |
| HOXD11 | 0 | 0.016326 |
| HOXD12 | 0.02586142 | 0 |
| HOXD13 | 0 | 0.010264 |
| HOXD3 | 0 | 0 |
| HOXD4 | 0 | 0 |
| HOXD8 | 0 | 0.012712 |
| HOXD9 | 0 | 0 |
| HP | 1.20480583 | 0.934707 |
| HP1BP3 | 64.3039451 | 63.21848 |
| HPCA | 0 | 0 |
| HPCAL1 | 20.714994 | 22.29864 |
| HPCAL4 | 0.00987337 | 0.005608 |
| HPD | 0.31028247 | 0.117495 |
| HPDL | 0.05830652 | 0.039742 |
| HPGD | 1.74037032 | 0.677859 |
| HPN | 0.02669318 | 0.010108 |
| HPR | 0.05078582 | 0.019231 |
| HPRT1 | 3.12036714 | 3.072148 |
| HPRTP2 | 0 | 0 |
| HPRTP3 | 0 | 0 |
| HPRTP4 | 0 | 0 |
| HPS1 | 32.0190674 | 31.01843 |
| HPS3 | 5.43701549 | 4.829611 |
| HPS4 | 5.29490931 | 4.457485 |
| HPS5 | 9.24166699 | 8.144431 |
| HPS6 | 5.57604168 | 5.377985 |
| HPSE | 0.09014075 | 0.0384 |
| HPSE2 | 0.00916935 | 0 |
| HPVC1 | 0 | 0 |
| HPX | 0.07568514 | 0.171959 |
| HPYR1 | 0 | 0 |
| HR | 0.02287019 | 0.017321 |
| HRAS | 1.38010681 | 1.316197 |
| HRASLS | 0 | 0 |

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| HRASLS2 | 0 | 0 |
| HRASLS5 | 11.2880422 | 6.083943 |
| HRC | 0.03526261 | 0.020029 |
| HRCT1 | 0 | 0.025142 |
| HRG | 0 | 0 |
| HRH1 | 0.01309174 | 0.024787 |
| HRH2 | 0.90375682 | 0.654952 |
| HRH3 | 0.03138109 | 0.017825 |
| HRH4 | 25.6339368 | 13.31653 |
| HRK | 0.75413669 | 0.514027 |
| HRNBP3 | 0.07063381 | 0.106988 |
| HRNR | 0.0021849 | 0 |
| HRSP12 | 0.87345589 | 0.685132 |
| HS1BP3 | 7.01719327 | 6.411109 |
| HS2ST1 | 1.69591796 | 1.752342 |
| HS3ST1 | 0.02139983 | 0 |
| HS3ST2 | 0.01077117 | 0 |
| HS3ST3A1 | 0.02496082 | 0.018904 |
| HS3ST3B1 | 0.46562003 | 0.411407 |
| HS3ST4 | 0.03734517 | 0.042425 |
| HS3ST5 | 0.00766229 | 0.008704 |
| HS3ST6 | 0.01977924 | 0 |
| HS6ST1 | 8.1611482 | 7.355308 |
| HS6ST1P | 0 | 0 |
| HS6ST2 | 0.01381125 | 0 |
| HS6ST3 | 0.00808667 | 0.012249 |
| HSBP1 | 24.6277674 | 22.5336 |
| HSBP1P1 | 0 | 0 |
| HSCB | 1.46598638 | 1.227125 |
| HSD11B1 | 0.01414894 | 0 |
| HSD11B1L | 0.14634801 | 0.152399 |
| HSD11B2 | 0.04463977 | 0.012678 |
| HSD17B1 | 4.95711523 | 4.860529 |
| HSD17B10 | 4.27929893 | 4.76214 |
| HSD17B11 | 72.0114779 | 66.65642 |
| HSD17B12 | 4.75032035 | 4.195145 |
| HSD17B13 | 1.51873998 | 1.575719 |
| HSD17B14 | 0 | 0 |
| HSD17B2 | 0 | 0 |
| HSD17B3 | 0.01854086 | 0.126376 |
| HSD17B4 | 33.0566674 | 23.65269 |
| HSD17B6 | 0.01390564 | 0.015797 |
| HSD17B7 | 11.7514852 | 9.418815 |
| HSD17B7P1 | 0 | 0 |
| HSD17B7P2 | 0 | 0 |
| HSD17B8 | 0.29762855 | 0.289809 |
| HSD17BP1 | 0 | 0 |

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| HSD3B1 | 0.01251508 | 0 |
| HSD3B2 | 0 | 0 |
| HSD3B7 | 26.8165807 | 28.95743 |
| HSDL1 | 11.2902652 | 10.29224 |
| HSDL2 | 22.2567211 | 25.26167 |
| HSF1 | 41.0345679 | 48.80243 |
| HSF2 | 3.79656514 | 3.161655 |
| HSF2BP | 0 | 0.012578 |
| HSF4 | 0.4497397 | 0.583899 |
| HSF5 | 0.05119389 | 0.075604 |
| HSFX1 | 0.47048229 | 0.677002 |
| HSFX2 | 0 | 0 |
| HSFY1 | 0 | 0 |
| HSFY2 | 0 | 0 |
| HSFY3P | 0 | 0 |
| HSFY4P | 0 | 0 |
| HSH2D | 63.9379781 | 50.68772 |
| HSN2 | 0 | 0 |
| HSP90AA1 | 28.7459729 | 29.00921 |
| HSP90AA2 | 0 | 0 |
| HSP90AA3P | 0 | 0 |
| HSP90AA4P | 0 | 0 |
| HSP90AA5P | 0 | 0 |
| HSP90AA6P | 0 | 0 |
| HSP90AB1 | 20.4122992 | 21.08063 |
| HSP90AB2P | 0 | 0 |
| HSP90AB3P | 0 | 0 |
| HSP90AB4P | 0 | 0 |
| HSP90AB5P | 0 | 0 |
| HSP90AB6P | 0 | 0 |
| HSP90B1 | 28.5430212 | 22.86269 |
| HSP90B2P | 0 | 0 |
| HSP90B3P | 0 | 0 |
| HSPA12A | 0.01837236 | 0.012523 |
| HSPA12B | 0 | 0 |
| HSPA13 | 6.26488417 | 6.068627 |
| HSPA14 | 7.60218224 | 7.829449 |
| HSPA1A | 52.3079765 | 50.35638 |
| HSPA1B | 1.93566539 | 1.279559 |
| HSPA1L | 3.62991524 | 2.664362 |
| HSPA2 | 0.01518074 | 0.068982 |
| HSPA4 | 12.776693 | 12.00253 |
| HSPA4L | 0.04506348 | 0.036566 |
| HSPA5 | 43.7581415 | 41.75226 |
| HSPA6 | 26.154814 | 18.11197 |
| HSPA7 | 0 | 0 |
| HSPA8 | 35.5319724 | 28.6072 |

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| HSPA9 | 21.0843494 | 19.36789 |
| HSPA9P | 0 | 0 |
| HSPAP1 | 0 | 0 |
| HSPB1 | 0.79694677 | 0.798833 |
| HSPB11 | 14.4833395 | 13.15469 |
| HSPB2 | 0 | 0 |
| HSPB3 | 0 | 0 |
| HSPB6 | 0.02886113 | 0.016393 |
| HSPB7 | 0.01454034 | 0 |
| HSPB8 | 0 | 0 |
| HSPB9 | 0.17521109 | 0.248803 |
| HSPBAP1 | 20.5040418 | 19.41899 |
| HSPBL2 | 0 | 0 |
| HSPBL3 | 0 | 0 |
| HSPBP1 | 0.46282175 | 0.450662 |
| HSPC072 | 0 | 0 |
| HSPC152 | 66.6102681 | 56.45571 |
| HSPC157 | 0 | 0 |
| HSPC159 | 1.53281091 | 1.110935 |
| HSPD1 | 3.3747555 | 3.255278 |
| HSPD1P1 | 0 | 0 |
| HSPD1P12 | 0 | 0 |
| HSPD1P2 | 0 | 0 |
| HSPD1P3 | 0 | 0 |
| HSPD1P4 | 0 | 0 |
| HSPD1P5 | 0 | 0 |
| HSPD1P6 | 0 | 0 |
| HSPD1P7 | 0 | 0 |
| HSPE1 | 1.21342414 | 0.902271 |
| HSPEP1 | 0 | 0 |
| HSPEP2 | 0 | 0 |
| HSPG2 | 0.00741059 | 0.016837 |
| HSPH1 | 4.01246774 | 3.913563 |
| HTA | 0 | 0 |
| HTATIP2 | 10.249143 | 8.927514 |
| HTATSF1 | 9.54103456 | 9.133306 |
| HTN1 | 0 | 0 |
| HTN3 | 0 | 0 |
| HTR1A | 0 | 0 |
| HTR1B | 0 | 0.020362 |
| HTR1D | 0.00741634 | 0.008425 |
| HTR1E | 0.01026627 | 0 |
| HTR1F | 0 | 0 |
| HTR2A | 0 | 0 |
| HTR2B | 0.00940731 | 0 |
| HTR2C | 0.00442545 | 0 |
| HTR3A | 0.00946661 | 0 |

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| HTR3B | 0.01157145 | 0 |
| HTR3C | 0 | 0.014058 |
| HTR3D | 0.01191912 | 0 |
| HTR3E | 0.02199302 | 0 |
| HTR4 | 0 | 0 |
| HTR5A | 0 | 0 |
| HTR5B | 0 | 0 |
| HTR6 | 0.02119489 | 0.012039 |
| HTR7 | 0.03136237 | 0.007126 |
| HTR7P | 0 | 0 |
| HTRA1 | 0 | 0 |
| HTRA2 | 4.35348029 | 4.102619 |
| HTRA3 | 0 | 0.009415 |
| HTRA4 | 0.5879121 | 0.667877 |
| HTT | 7.50358565 | 8.238812 |
| HULC | 0 | 0 |
| HUNK | 0.01138813 | 0.003234 |
| HUS1 | 4.48370334 | 4.079305 |
| HUS1B | 0 | 0 |
| HUWE1 | 12.2978351 | 11.3768 |
| HVCN1 | 92.8482357 | 102.4748 |
| HYAL1 | 0.47490481 | 0.580371 |
| HYAL2 | 1.28687023 | 1.703724 |
| HYAL3 | 2.27359398 | 1.795688 |
| HYAL4 | 0.02620523 | 0.009923 |
| HYALP1 | 0 | 0 |
| HYDIN | 0.00779727 | 0.004429 |
| HYI | 1.80401205 | 2.073784 |
| HYLS1 | 0.2004003 | 0.142286 |
| HYMAI | 0 | 0 |
| HYOU1 | 5.45810478 | 5.677311 |
| HYPK | 6.49930542 | 7.294785 |
| IAH1 | 9.39874066 | 9.095323 |
| IAPP | 0 | 0 |
| IARS | 0.59271584 | 0.454109 |
| IARS2 | 8.59615532 | 7.436756 |
| IBSP | 0 | 0 |
| IBTK | 3.5278867 | 2.713183 |
| ICA1 | 0.00842361 | 0.038277 |
| ICA1L | 0.05384208 | 0.036143 |
| ICAM1 | 3.30990269 | 5.526099 |
| ICAM2 | 15.5308584 | 13.81667 |
| ICAM3 | 279.825894 | 299.1006 |
| ICAM4 | 0.41458399 | 0.706461 |
| ICAM5 | 1.45678509 | 1.463977 |
| ICK | 2.97954353 | 2.400764 |
| ICMT | 2.03921694 | 2.068555 |

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| ICOS | 0.01609287 | 0.009141 |
| ICOSLG | 8.42571151 | 11.1572 |
| ICT1 | 3.58794044 | 3.070554 |
| ID1 | 0.08602836 | 0.234551 |
| ID2 | 81.0492597 | 238.711 |
| ID2B | 0 | 0 |
| ID3 | 0.22853621 | 2.188232 |
| ID4 | 0.00896985 | 0.01019 |
| IDE | 2.71185698 | 2.722787 |
| IDH1 | 5.53393211 | 4.768817 |
| IDH2 | 38.3624331 | 47.8667 |
| IDH3A | 2.01180465 | 1.971754 |
| IDH3B | 26.768899 | 26.61232 |
| IDH3G | 35.1732172 | 29.77268 |
| IDI1 | 24.6164614 | 23.43803 |
| IDI2 | 0.37130827 | 0.456963 |
| IDO1 | 92.540881 | 37.60537 |
| IDO2 | 0.5224254 | 0.354008 |
| IDS | 246.956711 | 273.3836 |
| IDSP1 | 0 | 0 |
| IDUA | 2.22179847 | 2.381955 |
| IER2 | 79.3321634 | 148.8101 |
| IER3 | 13.1916996 | 32.03301 |
| IER3IP1 | 3.40721096 | 3.790007 |
| IER5 | 58.3089345 | 81.41538 |
| IER5L | 0.10861795 | 0.449498 |
| IFFO1 | 21.1317345 | 23.66753 |
| IFFO2 | 0.07927288 | 0.081868 |
| IFI16 | 0.17687733 | 0.279562 |
| IFI27 | 0 | 0.036634 |
| IFI27L1 | 0.64693326 | 0.434275 |
| IFI27L2 | 4.63727856 | 3.835938 |
| IFI30 | 697.014169 | 814.5239 |
| IFI35 | 7.42677267 | 6.503468 |
| IFI44 | 5.21369736 | 4.732739 |
| IFI44L | 1.79685328 | 1.85014 |
| IFI6 | 41.7328372 | 41.88226 |
| IFIH1 | 1.69013914 | 1.480165 |
| IFIT1 | 2.49682866 | 2.31022 |
| IFIT1L | 0 | 0.036336 |
| IFIT1P | 0 | 0 |
| IFIT2 | 18.2941435 | 17.07153 |
| IFIT3 | 13.7040104 | 12.24467 |
| IFIT5 | 3.71617773 | 3.398625 |
| IFITM1 | 142.98398 | 155.5697 |
| IFITM2 | 442.223194 | 480.6796 |
| IFITM3 | 26.501989 | 27.81829 |

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| IFITM4P | 0 | 0 |
| IFITM5 | 0.11473578 | 0 |
| IFITM8P | 0 | 0 |
| IFITM9P | 0 | 0 |
| IFLTD1 | 0 | 0 |
| IFNA1 | 0.02400152 | 0 |
| IFNA10 | 0 | 0 |
| IFNA13 | 0 | 0 |
| IFNA14 | 0 | 0 |
| IFNA16 | 0 | 0 |
| IFNA17 | 0 | 0 |
| IFNA2 | 0 | 0 |
| IFNA21 | 0 | 0 |
| IFNA4 | 0 | 0 |
| IFNA5 | 0 | 0 |
| IFNA6 | 0 | 0 |
| IFNA7 | 0.02852826 | 0 |
| IFNA8 | 0 | 0 |
| IFNAP22 | 0 | 0 |
| IFNAR1 | 8.03067604 | 7.234112 |
| IFNAR2 | 17.3303349 | 15.08693 |
| IFNB1 | 0 | 0.028435 |
| IFNE | 0 | 0 |
| IFNG | 0 | 0 |
| IFNGR1 | 233.430762 | 245.0815 |
| IFNGR2 | 36.0677672 | 44.23208 |
| IFNK | 0 | 0 |
| IFNNP1 | 0 | 0 |
| IFNW1 | 0 | 0 |
| IFNWP12 | 0 | 0 |
| IFNWP18 | 0 | 0 |
| IFNWP19 | 0 | 0 |
| IFRD1 | 113.386606 | 101.5212 |
| IFRD2 | 0.50843617 | 0.385061 |
| IFRG15 | 0.05309427 | 0 |
| IFT122 | 2.90856293 | 3.138106 |
| IFT140 | 0.09977853 | 0.09068 |
| IFT172 | 0.67861609 | 0.619409 |
| IFT20 | 10.124107 | 9.416717 |
| IFT52 | 3.67786386 | 3.322526 |
| IFT57 | 1.56229434 | 1.014166 |
| IFT74 | 0.2501211 | 0.284142 |
| IFT80 | 0.86707446 | 0.578763 |
| IFT81 | 0.06212158 | 0.044909 |
| IFT88 | 0.6520514 | 0.657596 |
| IGBP1 | 15.5443145 | 16.13431 |
| IGDCC3 | 0.01877681 | 0.005333 |

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| IGDCC4 | 0.02593719 | 0.040514 |
| IGF1 | 0 | 0.006113 |
| IGF1R | 8.9865429 | 7.799523 |
| IGF2 | 0.00333471 | 0 |
| IGF2AS | 0 | 0 |
| IGF2BP1 | 0.00719307 | 0.002724 |
| IGF2BP2 | 0.84192962 | 0.83933 |
| IGF2BP3 | 0.00505538 | 0.011486 |
| IGF2R | 25.606915 | 22.81053 |
| IGFALS | 0.04090531 | 0.081321 |
| IGFBP1 | 0 | 0 |
| IGFBP2 | 0.01470303 | 0 |
| IGFBP3 | 0.00799138 | 0.018157 |
| IGFBP4 | 0.0188062 | 0.05341 |
| IGFBP5 | 0.00336998 | 0.003828 |
| IGFBP6 | 2.65537306 | 2.373675 |
| IGFBP7 | 13.9979456 | 13.62097 |
| IGFBPL1 | 0.0384727 | 0.087411 |
| IGFL1 | 0 | 0 |
| IGFL2 | 0.04403211 | 0.050021 |
| IGFL3 | 0 | 0 |
| IGFL4 | 0.40362764 | 0.29179 |
| IGFN1 | 0 | 0 |
| IGHA1 | 0 | 0 |
| IGHA2 | 0 | 0 |
| IGHD | 0 | 0 |
| IGHD1-1 | 0 | 0 |
| IGHD1-14 | 0 | 0 |
| IGHD1-20 | 0 | 0 |
| IGHD1-26 | 0 | 0 |
| IGHD1-7 | 0 | 0 |
| IGHD2-15 | 0 | 0 |
| IGHD2-2 | 0 | 0 |
| IGHD2-21 | 0 | 0 |
| IGHD2-8 | 0 | 0 |
| IGHD3-10 | 0 | 0 |
| IGHD3-16 | 0 | 0 |
| IGHD3-22 | 0 | 0 |
| IGHD3-3 | 0 | 0 |
| IGHD3-9 | 0 | 0 |
| IGHD4-11 | 0 | 0 |
| IGHD4-17 | 0 | 0 |
| IGHD4-23 | 0 | 0 |
| IGHD4-4 | 0 | 0 |
| IGHD5-12 | 0 | 0 |
| IGHD5-18 | 0 | 0 |
| IGHD5-24 | 0 | 0 |

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|-------------|------------|----------|
| IGHD5-5 | 0 | 0 |
| IGHD6-13 | 0 | 0 |
| IGHD6-19 | 0 | 0 |
| IGHD6-25 | 0 | 0 |
| IGHD6-6 | 0 | 0 |
| IGHD7-27 | 0 | 0 |
| IGHE | 0 | 0 |
| IGHEP1 | 0 | 0 |
| IGHEP2 | 0 | 0 |
| IGHG1 | 0 | 0 |
| IGHG2 | 0 | 0 |
| IGHG3 | 0 | 0 |
| IGHG4 | 0 | 0 |
| IGHGP | 0 | 0 |
| IGHJ1 | 0 | 0 |
| IGHJ1P | 0 | 0 |
| IGHJ2 | 0 | 0 |
| IGHJ2P | 0 | 0 |
| IGHJ3 | 0 | 0 |
| IGHJ3P | 0 | 0 |
| IGHJ4 | 0 | 0 |
| IGHJ5 | 0 | 0 |
| IGHJ6 | 0 | 0 |
| IGHM | 0 | 0 |
| IGHMBP2 | 5.47700832 | 5.056104 |
| IGHV1-12 | 0 | 0 |
| IGHV1-14 | 0 | 0 |
| IGHV1-17 | 0 | 0 |
| IGHV1-18 | 0 | 0 |
| IGHV1-2 | 0 | 0 |
| IGHV1-24 | 0 | 0 |
| IGHV1-3 | 0 | 0 |
| IGHV1-45 | 0 | 0 |
| IGHV1-46 | 0 | 0 |
| IGHV1-58 | 0 | 0 |
| IGHV1-67 | 0 | 0 |
| IGHV1-68 | 0 | 0 |
| IGHV1-69 | 0 | 0 |
| IGHV1-8 | 0 | 0 |
| IGHV1OR15-1 | 0 | 0 |
| IGHV1OR15-2 | 0 | 0 |
| IGHV1OR15-3 | 0 | 0 |
| IGHV1OR15-4 | 0 | 0 |
| IGHV1OR15-5 | 0 | 0 |
| IGHV1OR15-9 | 0 | 0 |
| IGHV2-10 | 0 | 0 |
| IGHV2-26 | 0 | 0 |

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|-------------|---|---|
| IGHV2-5 | 0 | 0 |
| IGHV2-70 | 0 | 0 |
| IGHV2OR16-5 | 0 | 0 |
| IGHV3-11 | 0 | 0 |
| IGHV3-13 | 0 | 0 |
| IGHV3-15 | 0 | 0 |
| IGHV3-16 | 0 | 0 |
| IGHV3-19 | 0 | 0 |
| IGHV3-20 | 0 | 0 |
| IGHV3-21 | 0 | 0 |
| IGHV3-22 | 0 | 0 |
| IGHV3-23 | 0 | 0 |
| IGHV3-25 | 0 | 0 |
| IGHV3-29 | 0 | 0 |
| IGHV3-30 | 0 | 0 |
| IGHV3-30-2 | 0 | 0 |
| IGHV3-32 | 0 | 0 |
| IGHV3-33 | 0 | 0 |
| IGHV3-33-2 | 0 | 0 |
| IGHV3-35 | 0 | 0 |
| IGHV3-36 | 0 | 0 |
| IGHV3-37 | 0 | 0 |
| IGHV3-38 | 0 | 0 |
| IGHV3-41 | 0 | 0 |
| IGHV3-42 | 0 | 0 |
| IGHV3-43 | 0 | 0 |
| IGHV3-47 | 0 | 0 |
| IGHV3-48 | 0 | 0 |
| IGHV3-49 | 0 | 0 |
| IGHV3-50 | 0 | 0 |
| IGHV3-52 | 0 | 0 |
| IGHV3-53 | 0 | 0 |
| IGHV3-54 | 0 | 0 |
| IGHV3-57 | 0 | 0 |
| IGHV3-6 | 0 | 0 |
| IGHV3-60 | 0 | 0 |
| IGHV3-62 | 0 | 0 |
| IGHV3-63 | 0 | 0 |
| IGHV3-64 | 0 | 0 |
| IGHV3-65 | 0 | 0 |
| IGHV3-66 | 0 | 0 |
| IGHV3-7 | 0 | 0 |
| IGHV3-71 | 0 | 0 |
| IGHV3-72 | 0 | 0 |
| IGHV3-73 | 0 | 0 |
| IGHV3-74 | 0 | 0 |
| IGHV3-75 | 0 | 0 |

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|--------------|---|---|
| IGHV3-76 | 0 | 0 |
| IGHV3-79 | 0 | 0 |
| IGHV3-9 | 0 | 0 |
| IGHV3OR16-6 | 0 | 0 |
| IGHV3OR16-8 | 0 | 0 |
| IGHV4-28 | 0 | 0 |
| IGHV4-31 | 0 | 0 |
| IGHV4-34 | 0 | 0 |
| IGHV4-39 | 0 | 0 |
| IGHV4-4 | 0 | 0 |
| IGHV4-55 | 0 | 0 |
| IGHV4-59 | 0 | 0 |
| IGHV4-61 | 0 | 0 |
| IGHV4-80 | 0 | 0 |
| IGHV5-51 | 0 | 0 |
| IGHV5-78 | 0 | 0 |
| IGHV6-1 | 0 | 0 |
| IGHV7-27 | 0 | 0 |
| IGHV7-34-1 | 0 | 0 |
| IGHV7-40 | 0 | 0 |
| IGHV7-56 | 0 | 0 |
| IGHV7-81 | 0 | 0 |
| IGHVII-1-1 | 0 | 0 |
| IGHVII-15-1 | 0 | 0 |
| IGHVII-20-1 | 0 | 0 |
| IGHVII-22-1 | 0 | 0 |
| IGHVII-26-2 | 0 | 0 |
| IGHVII-28-1 | 0 | 0 |
| IGHVII-30-1 | 0 | 0 |
| IGHVII-31-1 | 0 | 0 |
| IGHVII-33-1 | 0 | 0 |
| IGHVII-40-1 | 0 | 0 |
| IGHVII-43-1 | 0 | 0 |
| IGHVII-44-2 | 0 | 0 |
| IGHVII-46-1 | 0 | 0 |
| IGHVII-49-1 | 0 | 0 |
| IGHVII-51-2 | 0 | 0 |
| IGHVII-53-1 | 0 | 0 |
| IGHVII-60-1 | 0 | 0 |
| IGHVII-62-1 | 0 | 0 |
| IGHVII-65-1 | 0 | 0 |
| IGHVII-67-1 | 0 | 0 |
| IGHVII-74-1 | 0 | 0 |
| IGHVII-78-1 | 0 | 0 |
| IGHVIII-11-1 | 0 | 0 |
| IGHVIII-13-1 | 0 | 0 |
| IGHVIII-16-1 | 0 | 0 |

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|----------------|------------|----------|
| IGHVIII-2-1 | 0 | 0 |
| IGHVIII-22-2 | 0 | 0 |
| IGHVIII-25-1 | 0 | 0 |
| IGHVIII-26-1 | 0 | 0 |
| IGHVIII-38-1 | 0 | 0 |
| IGHVIII-44 | 0 | 0 |
| IGHVIII-47-1 | 0 | 0 |
| IGHVIII-5-1 | 0 | 0 |
| IGHVIII-51-1 | 0 | 0 |
| IGHVIII-5-2 | 0 | 0 |
| IGHVIII-67-2 | 0 | 0 |
| IGHVIII-67-3 | 0 | 0 |
| IGHVIII-67-4 | 0 | 0 |
| IGHVIII-76-1 | 0 | 0 |
| IGHVIII-82 | 0 | 0 |
| IGHVIV-44-1 | 0 | 0 |
| IGJ | 0.10445516 | 0.271229 |
| IGJP1 | 0 | 0 |
| IGK@ (NC_00000 | 0 | 0 |
| IGK@ (NC_00000 | 0 | 0 |
| IGKC | 0 | 0 |
| IGKJ1 | 0 | 0 |
| IGKJ2 | 0 | 0 |
| IGKJ3 | 0 | 0 |
| IGKJ4 | 0 | 0 |
| IGKJ5 | 0 | 0 |
| IGKV1-12 | 0 | 0 |
| IGKV1-13 | 0 | 0 |
| IGKV1-16 | 0 | 0 |
| IGKV1-17 | 0 | 0 |
| IGKV1-22 | 0 | 0 |
| IGKV1-27 | 0 | 0 |
| IGKV1-32 | 0 | 0 |
| IGKV1-33 | 0 | 0 |
| IGKV1-35 | 0 | 0 |
| IGKV1-37 | 0 | 0 |
| IGKV1-39 | 0 | 0 |
| IGKV1-5 | 0 | 0 |
| IGKV1-6 | 0 | 0 |
| IGKV1-8 | 0 | 0 |
| IGKV1-9 | 0 | 0 |
| IGKV1D-12 | 0 | 0 |
| IGKV1D-13 | 0 | 0 |
| IGKV1D-16 | 0 | 0 |
| IGKV1D-17 | 0 | 0 |
| IGKV1D-22 | 0 | 0 |
| IGKV1D-27 | 0 | 0 |

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| IGKV1D-32 | 0 | 0 |
| IGKV1D-33 | 0 | 0 |
| IGKV1D-35 | 0 | 0 |
| IGKV1D-37 | 0 | 0 |
| IGKV1D-39 | 0 | 0 |
| IGKV1D-42 | 0 | 0 |
| IGKV1D-43 | 0 | 0 |
| IGKV1D-8 | 0 | 0 |
| IGKV1OR15-118 | 0 | 0 |
| IGKV2-10 | 0 | 0 |
| IGKV2-14 | 0 | 0 |
| IGKV2-18 | 0 | 0 |
| IGKV2-19 | 0 | 0 |
| IGKV2-23 | 0 | 0 |
| IGKV2-24 | 0 | 0 |
| IGKV2-26 | 0 | 0 |
| IGKV2-28 | 0 | 0 |
| IGKV2-29 | 0 | 0 |
| IGKV2-30 | 0 | 0 |
| IGKV2-36 | 0 | 0 |
| IGKV2-38 | 0 | 0 |
| IGKV2-4 | 0 | 0 |
| IGKV2-40 | 0 | 0 |
| IGKV2D-10 | 0 | 0 |
| IGKV2D-14 | 0 | 0 |
| IGKV2D-18 | 0 | 0 |
| IGKV2D-19 | 0 | 0 |
| IGKV2D-23 | 0 | 0 |
| IGKV2D-24 | 0 | 0 |
| IGKV2D-26 | 0 | 0 |
| IGKV2D-28 | 0 | 0 |
| IGKV2D-29 | 0 | 0 |
| IGKV2D-30 | 0 | 0 |
| IGKV2D-36 | 0 | 0 |
| IGKV2D-38 | 0 | 0 |
| IGKV2D-40 | 0 | 0 |
| IGKV2OR2-7 | 0 | 0 |
| IGKV3-11 | 0 | 0 |
| IGKV3-15 | 0 | 0 |
| IGKV3-20 | 0 | 0 |
| IGKV3-25 | 0 | 0 |
| IGKV3-31 | 0 | 0 |
| IGKV3-34 | 0 | 0 |
| IGKV3-7 | 0 | 0 |
| IGKV3D-11 | 0 | 0 |
| IGKV3D-15 | 0 | 0 |
| IGKV3D-20 | 0 | 0 |

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|-----------|------------|----------|
| IGKV3D-25 | 0 | 0 |
| IGKV3D-31 | 0 | 0 |
| IGKV3D-34 | 0 | 0 |
| IGKV3D-7 | 0 | 0 |
| IGKV4-1 | 0 | 0 |
| IGKV5-2 | 0 | 0 |
| IGKV6-21 | 0 | 0 |
| IGKV6D-21 | 0 | 0 |
| IGKV6D-41 | 0 | 0 |
| IGKV7-3 | 0 | 0 |
| IGL@ | 0 | 0 |
| IGLC1 | 0 | 0 |
| IGLC2 | 0 | 0 |
| IGLC3 | 0 | 0 |
| IGLC4 | 0 | 0 |
| IGLC5 | 0 | 0 |
| IGLC6 | 0 | 0 |
| IGLC7 | 0 | 0 |
| IGLJ1 | 0 | 0 |
| IGLJ2 | 0 | 0 |
| IGLJ3 | 0 | 0 |
| IGLJ4 | 0 | 0 |
| IGLJ5 | 0 | 0 |
| IGLJ6 | 0 | 0 |
| IGLJ7 | 0 | 0 |
| IGLJCOR18 | 0 | 0 |
| IGLL1 | 0.1400133 | 0 |
| IGLL3 | 1.58725146 | 1.385023 |
| IGLON5 | 0.04747655 | 0.046229 |
| IGLV10-54 | 0 | 0 |
| IGLV10-67 | 0 | 0 |
| IGLV11-55 | 0 | 0 |
| IGLV1-36 | 0 | 0 |
| IGLV1-40 | 0 | 0 |
| IGLV1-41 | 0 | 0 |
| IGLV1-44 | 0 | 0 |
| IGLV1-47 | 0 | 0 |
| IGLV1-50 | 0 | 0 |
| IGLV1-51 | 0 | 0 |
| IGLV1-62 | 0 | 0 |
| IGLV2-11 | 0 | 0 |
| IGLV2-14 | 0 | 0 |
| IGLV2-18 | 0 | 0 |
| IGLV2-23 | 0 | 0 |
| IGLV2-28 | 0 | 0 |
| IGLV2-33 | 0 | 0 |
| IGLV2-34 | 0 | 0 |

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|-----------|---|---|
| IGLV2-5 | 0 | 0 |
| IGLV2-8 | 0 | 0 |
| IGLV3-1 | 0 | 0 |
| IGLV3-10 | 0 | 0 |
| IGLV3-12 | 0 | 0 |
| IGLV3-13 | 0 | 0 |
| IGLV3-15 | 0 | 0 |
| IGLV3-16 | 0 | 0 |
| IGLV3-17 | 0 | 0 |
| IGLV3-19 | 0 | 0 |
| IGLV3-2 | 0 | 0 |
| IGLV3-21 | 0 | 0 |
| IGLV3-22 | 0 | 0 |
| IGLV3-24 | 0 | 0 |
| IGLV3-25 | 0 | 0 |
| IGLV3-26 | 0 | 0 |
| IGLV3-27 | 0 | 0 |
| IGLV3-29 | 0 | 0 |
| IGLV3-30 | 0 | 0 |
| IGLV3-31 | 0 | 0 |
| IGLV3-32 | 0 | 0 |
| IGLV3-4 | 0 | 0 |
| IGLV3-6 | 0 | 0 |
| IGLV3-7 | 0 | 0 |
| IGLV3-9 | 0 | 0 |
| IGLV4-3 | 0 | 0 |
| IGLV4-60 | 0 | 0 |
| IGLV4-69 | 0 | 0 |
| IGLV5-37 | 0 | 0 |
| IGLV5-45 | 0 | 0 |
| IGLV5-48 | 0 | 0 |
| IGLV5-52 | 0 | 0 |
| IGLV6-57 | 0 | 0 |
| IGLV7-35 | 0 | 0 |
| IGLV7-43 | 0 | 0 |
| IGLV7-46 | 0 | 0 |
| IGLV8-61 | 0 | 0 |
| IGLV9-49 | 0 | 0 |
| IGLVI-20 | 0 | 0 |
| IGLVI-38 | 0 | 0 |
| IGLVI-42 | 0 | 0 |
| IGLVI-56 | 0 | 0 |
| IGLVI-63 | 0 | 0 |
| IGLVI-68 | 0 | 0 |
| IGLVI-70 | 0 | 0 |
| IGLVIV-53 | 0 | 0 |
| IGLVIV-59 | 0 | 0 |

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|-----------------|------------|----------|
| IGLVIV-64 | 0 | 0 |
| IGLVIV-65 | 0 | 0 |
| IGLVIV-66-1 | 0 | 0 |
| IGLVV-58 | 0 | 0 |
| IGLVV-66 | 0 | 0 |
| IGLVVI-22-1 | 0 | 0 |
| IGLVVI-25-1 | 0 | 0 |
| IGLVVII-41-1 | 0 | 0 |
| IGSF1 | 0 | 0 |
| IGSF10 | 0.03739261 | 0.009103 |
| IGSF11 | 0.01088549 | 0 |
| IGSF2 | 130.781471 | 193.6061 |
| IGSF21 | 0.01082107 | 0 |
| IGSF22 | 0.01600101 | 0.012118 |
| IGSF3 | 0.00579769 | 0.006586 |
| IGSF5 | 0 | 0.011561 |
| IGSF6 | 0.12271594 | 0.023235 |
| IGSF8 | 1.28632086 | 1.072307 |
| IGSF9 | 0.01039828 | 0 |
| IGSF9B | 0.04602617 | 0.058822 |
| IHH | 0 | 0 |
| IK | 61.793828 | 61.02738 |
| IKBKAP | 6.36193364 | 5.906818 |
| IKBKB | 24.9071783 | 22.43956 |
| IKBKE | 0.09020982 | 0.1098 |
| IKBKG | 28.920494 | 27.10092 |
| IKBKGP | 0 | 0 |
| IKIP | 2.09762955 | 2.079657 |
| IKZF1 (NC_0000C | 49.1030457 | 34.44248 |
| IKZF1 (NC_0000C | 43.7938244 | 29.76896 |
| IKZF2 | 8.22512688 | 4.992136 |
| IKZF3 | 2.02747344 | 1.99941 |
| IKZF4 | 0.46285814 | 0.547723 |
| IKZF5 | 16.1177296 | 14.6941 |
| IL10 | 0.01290689 | 0 |
| IL10RA | 28.7775591 | 20.12203 |
| IL10RB | 70.6059951 | 73.43282 |
| IL11 | 0.00893175 | 0.010147 |
| IL11RA | 4.42471807 | 4.018841 |
| IL12A | 0.19020828 | 0.083108 |
| IL12B | 0 | 0 |
| IL12RB1 | 2.8551111 | 2.827624 |
| IL12RB2 | 0.05724719 | 0.059122 |
| IL13 | 0.04920124 | 0.018631 |
| IL13RA1 | 67.4322147 | 90.65132 |
| IL13RA2 | 0 | 0 |
| IL15 | 0 | 0.024561 |

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|--------------|------------|-----------------|
| IL15RA | 1.25337293 | 1.827276 |
| IL16 | 74.9288987 | 75.18715 |
| IL17A | 0 | 0 |
| IL17B | 0.09075682 | 0.206202 |
| IL17C | 0 | 0.045713 |
| IL17D | 0 | 0.012835 |
| IL17F | 0 | 0 |
| IL17RA | 26.3659735 | 27.70227 |
| IL17RB | 1.05126655 | 1.077172 |
| IL17RC | 0.00793708 | 0.02705 |
| IL17RD | 0.00723349 | 0.002739 |
| IL17RE | 0.01513703 | 0.025794 |
| IL17REL | 0 | 0.006571 |
| IL18 | 4.86612463 | 3.921747 |
| IL18BP | 17.2938415 | 15.00931 |
| IL18R1 | 47.4592224 | 33.93557 |
| IL18RAP | 8.10121448 | 3.607833 |
| IL19 | 0.0106836 | 0 |
| IL1A | 0.5313779 | 0.505764 |
| IL1B | 2.54044386 | 1.897415 |
| IL1F10 | 0 | 0 |
| IL1F5 | 0 | 0.008524 |
| IL1F6 | 0 | 0 |
| IL1F7 | 0 | 0 |
| IL1F8 | 0 | 0.013735 |
| IL1F9 | 0 | 0 |
| IL1R1 | 0.09854954 | 0.058411 |
| IL1R2 | 0.06666243 | 0 |
| IL1RAP | 26.9824445 | 35.86449 |
| IL1RAPL1 | 0 | 0 |
| IL1RAPL2 | 0.00704366 | 0 |
| IL1RL1 | 79.2704384 | 48.73338 |
| IL1RL2 | 0.01070536 | 0 |
| IL1RN | 0.01990093 | 0.022608 |
| IL2 | 0 | 0 |
| IL20 | 0 | 0 |
| IL20RA | 0.0114206 | 0.006487 |
| IL20RB | 0.79360318 | 0.632253 |
| IL21 | 0 | 0 |
| IL21R | 0.13492818 | 0.173274 |
| IL22 | 0 | 0 |
| IL22RA1 | 0.01502883 | 0 |
| IL22RA2 | 0.00725762 | 0.008245 |
| IL23A | 0.24213433 | 0.229224 |
| <u>IL23R</u> | <u>0</u> | <u>0.016904</u> |
| IL24 | 0.01064574 | 0.048375 |
| IL25 | 0 | 0 |

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|-----------------|------------|----------|
| IL26 | 0 | 0.022813 |
| IL27 | 0.70487221 | 0.503326 |
| IL27RA | 0.793774 | 1.862129 |
| IL28A | 0 | 0 |
| IL28B | 0 | 0 |
| IL28RA | 0.02310984 | 0.021003 |
| IL29 | 0.0245623 | 0 |
| IL2RA | 11.8073736 | 16.98681 |
| IL2RB | 0.45221355 | 0.472388 |
| IL2RG | 21.7643329 | 15.27593 |
| IL3 | 0.04550937 | 0 |
| IL31 | 0 | 0 |
| IL31RA | 0.01757236 | 0 |
| IL32 | 13.5704148 | 9.209682 |
| IL33 | 0 | 0 |
| IL34 | 3.20747577 | 1.784691 |
| IL3RA (NC_00002 | 34.8331945 | 32.05633 |
| IL3RA (NC_00002 | 40.4030629 | 36.58193 |
| IL4 | 0.04565761 | 0.103736 |
| IL4I1 | 0.18351286 | 0.238255 |
| IL4R | 54.3816755 | 66.20047 |
| IL5 | 0 | 0 |
| IL5RA | 13.6199106 | 6.321805 |
| IL6 | 0.01859004 | 0.063356 |
| IL6R | 36.4418931 | 46.83792 |
| IL6RL1 | 0 | 0 |
| IL6ST | 0.14329532 | 0.11099 |
| IL6STP | 0 | 0 |
| IL7 | 0.01011806 | 0 |
| IL7R | 0.68725459 | 0.516077 |
| IL8 | 1.37370583 | 0.606881 |
| IL8RA | 0.01691499 | 0.028824 |
| IL8RB | 9.14848259 | 7.385252 |
| IL8RBP | 0 | 0 |
| IL9 | 0 | 0 |
| IL9R (NC_000023 | 22.6464201 | 18.60443 |
| IL9R (NC_000024 | 22.3436866 | 16.59643 |
| IL9RP2 | 0 | 0 |
| IL9RP3 | 0 | 0 |
| IL9RP4 | 0 | 0 |
| ILD1R | 0.00790723 | 0.017965 |
| ILD2R | 0.0081747 | 0 |
| ILF2 | 28.6163624 | 25.21865 |
| ILF3 | 33.3231661 | 31.05096 |
| ILK | 75.4685456 | 77.215 |
| ILKAP | 35.1733534 | 42.39069 |
| ILVBL | 1.21687076 | 0.883479 |

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| IMAA | 0 | 0 |
| IMMP1L | 1.71905222 | 1.862738 |
| IMMP2L | 0.05536624 | 0.141518 |
| IMMT | 11.0836633 | 8.71516 |
| IMMTP | 0 | 0 |
| IMP3 | 12.6333239 | 10.72771 |
| IMP4 | 4.32933412 | 3.142178 |
| IMP5 | 0 | 0 |
| IMPA1 | 6.95583649 | 6.600444 |
| IMPA1P | 0 | 0 |
| IMPA2 | 39.5696729 | 45.87533 |
| IMPACT | 6.04639073 | 3.876009 |
| IMPAD1 | 6.08329418 | 6.481071 |
| IMPDH1 | 23.0970577 | 21.9778 |
| IMPDH1P1 | 0 | 0 |
| IMPDH1P11 | 0 | 0 |
| IMPDH1P2 | 0 | 0 |
| IMPDH1P3 | 0 | 0 |
| IMPDH1P4 | 0 | 0 |
| IMPDH1P5 | 0 | 0 |
| IMPDH1P6 | 0 | 0 |
| IMPDH1P7 | 0 | 0 |
| IMPDH1P8 | 0 | 0 |
| IMPDH1P9 | 0 | 0 |
| IMPDH2 | 4.39113107 | 3.677884 |
| IMPG1 | 0.0064337 | 0 |
| IMPG2 | 0.0283233 | 0.02145 |
| INA | 0 | 0 |
| INADL | 5.18896763 | 4.847231 |
| INCA1 | 0.28885126 | 0.069082 |
| INCENP | 4.89881083 | 4.418688 |
| INE1 | 0 | 0 |
| INE2 | 0 | 0 |
| INF2 | 0.08035158 | 0.040569 |
| ING1 | 5.62483903 | 4.59329 |
| ING2 | 15.42988 | 12.3278 |
| ING3 | 7.47181183 | 5.779802 |
| ING4 | 25.5556509 | 21.88919 |
| ING5 | 4.5060059 | 4.834001 |
| INGX | 0 | 0 |
| INHA | 0.01477536 | 0 |
| INHBA | 0.03866728 | 0.021963 |
| INHBB | 0.31508457 | 0.544369 |
| INHBC | 0.01056549 | 0.012003 |
| INHBE | 0.01725509 | 0.068607 |
| INMT | 0 | 0.009334 |
| INO80 | 7.64434708 | 7.387622 |

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|----------------|------------|----------|
| INO80B | 10.252451 | 9.538278 |
| INO80C | 11.1890318 | 10.60341 |
| INO80D | 4.31185869 | 3.845678 |
| INO80E | 19.9075286 | 18.38246 |
| INPP1 | 24.2330791 | 15.68047 |
| INPP4A | 59.518692 | 52.30286 |
| INPP4B | 0 | 0.005792 |
| INPP5A | 25.8558614 | 25.66552 |
| INPP5B | 32.5434737 | 23.75104 |
| INPP5D (NC_000 | 116.234377 | 125.425 |
| INPP5D (NC_000 | 178.482859 | 197.8102 |
| INPP5E | 1.32031107 | 0.799472 |
| INPP5F | 5.64853275 | 6.121407 |
| INPP5J | 0 | 0.021374 |
| INPP5K | 19.4166313 | 18.70009 |
| INPPL1 | 66.9842623 | 69.29112 |
| INS | 0 | 0 |
| INSC | 0.06265827 | 0.023727 |
| INSIG1 | 9.8938644 | 11.13691 |
| INSIG2 | 10.0609017 | 10.7728 |
| INS-IGF2 | 0 | 0.028847 |
| INSL3 | 0 | 0 |
| INSL4 | 0 | 0.038838 |
| INSL5 | 0 | 0 |
| INSL6 | 0 | 0 |
| INSM1 | 0.01486414 | 0.008443 |
| INSM2 | 0 | 0 |
| INSR | 1.7221322 | 1.439593 |
| INSRR | 0 | 0 |
| INTS1 | 16.7714247 | 16.48394 |
| INTS10 | 6.03328378 | 5.234577 |
| INTS12 | 6.65662218 | 6.240377 |
| INTS2 | 0.96885984 | 0.767605 |
| INTS3 | 10.6487062 | 9.118122 |
| INTS4 | 12.7060034 | 11.15751 |
| INTS4L1 | 0 | 0 |
| INTS4L2 | 0 | 0 |
| INTS5 | 5.76036465 | 5.278718 |
| INTS6 | 4.05518542 | 4.309716 |
| INTS7 | 2.12561116 | 1.407441 |
| INTS8 | 9.41246657 | 8.030155 |
| INTS9 | 2.93943417 | 2.725031 |
| INTU | 0 | 0 |
| INVS | 0.69903807 | 0.621752 |
| IP6K1 | 29.4298164 | 27.94258 |
| IP6K2 | 21.025331 | 18.99009 |
| IP6K3 | 0.01489574 | 0.008461 |

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| IPCEF1 | 6.78265746 | 3.260027 |
| IPMK | 11.8436053 | 10.64373 |
| IPO11 | 0.52642745 | 0.41759 |
| IPO13 | 2.86150483 | 2.386517 |
| IPO4 | 3.59766774 | 3.688922 |
| IPO5 | 1.59388963 | 1.436609 |
| IPO7 | 4.06788542 | 4.929775 |
| IPO8 | 12.1886568 | 11.23378 |
| IPO9 | 3.18621431 | 2.845458 |
| IPP | 0.74721633 | 0.745331 |
| IPPK | 3.73592566 | 3.76105 |
| IPW | 0 | 0 |
| IQCA1 | 0 | 0 |
| IQCA1L | 0 | 0 |
| IQCB1 | 5.80344525 | 5.856179 |
| IQCC | 1.02155797 | 0.93551 |
| IQCD | 0.21804047 | 0.159234 |
| IQCE | 1.63127568 | 1.769397 |
| IQCF1 | 0 | 0 |
| IQCF2 | 0 | 0 |
| IQCF3 | 0 | 0 |
| IQCF5 | 0 | 0 |
| IQCF6 | 0 | 0 |
| IQCG | 0.91453465 | 0.590762 |
| IQCH | 0.03429108 | 0.027825 |
| IQCJ | 0 | 0 |
| IQCK | 0.00823231 | 0.009352 |
| IQGAP1 | 53.0794832 | 48.13462 |
| IQGAP2 | 9.43570495 | 7.804374 |
| IQGAP3 | 0.01389645 | 0.007893 |
| IQSEC1 | 36.7986578 | 35.07695 |
| IQSEC2 | 13.0927093 | 14.01418 |
| IQSEC3 | 0 | 0 |
| IQUB | 0.0067497 | 0 |
| IQWD1 | 7.43835729 | 6.382902 |
| IRAK1 | 53.6260752 | 90.65105 |
| IRAK1BP1 | 0 | 0 |
| IRAK2 | 7.06703255 | 11.7119 |
| IRAK3 | 2.89526669 | 3.38067 |
| IRAK4 | 23.6504702 | 20.91942 |
| IREB2 | 12.2017587 | 11.23167 |
| IRF1 | 53.2318312 | 67.59607 |
| IRF2 | 33.2671138 | 34.53206 |
| IRF2BP1 | 9.33621825 | 9.074629 |
| IRF2BP2 | 112.097524 | 88.77905 |
| IRF3 | 31.8573521 | 30.10442 |
| IRF4 | 0.19782961 | 0.206759 |

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| IRF5 | 4.66392521 | 8.091373 |
| IRF6 | 0.49414372 | 0.61639 |
| IRF7 | 34.3702206 | 46.10563 |
| IRF8 | 0.40281438 | 0.58322 |
| IRF9 | 69.2156902 | 66.47405 |
| IRG1 | 0.01305111 | 0 |
| IRGC | 0.02611842 | 0.044506 |
| IRGM | 0.31683742 | 0.201562 |
| IRGQ | 1.87311455 | 1.7605 |
| IRS1 | 0.00722024 | 0.019139 |
| IRS2 | 36.8348896 | 45.55851 |
| IRS3L | 0 | 0 |
| IRS4 | 0 | 0 |
| IRX1 | 0.02263222 | 0.012855 |
| IRX1P1 | 0 | 0 |
| IRX2 | 0.00687777 | 0 |
| IRX3 | 0 | 0.010349 |
| IRX4 | 0.03786642 | 0.010754 |
| IRX5 | 0.04074677 | 0.092578 |
| IRX6 | 0 | 0.010256 |
| ISCA1 | 15.4647394 | 13.28937 |
| ISCA1L | 0.01117774 | 0.012698 |
| ISCA2 | 6.57908565 | 6.753565 |
| ISCU | 56.2288689 | 55.50794 |
| ISG15 | 32.0896356 | 40.85894 |
| ISG20 | 1.58349773 | 1.199252 |
| ISG20L2 | 17.457893 | 18.50485 |
| ISL1 | 0 | 0 |
| ISL2 | 0.09354986 | 0.013284 |
| ISLR | 0.0176313 | 0 |
| ISLR2 | 0.00419416 | 0 |
| ISM1 | 0 | 0 |
| ISM2 | 0.00702953 | 0.007986 |
| ISOC1 | 2.08954113 | 1.832586 |
| ISOC2 | 0.93445915 | 0.571609 |
| ISX | 0 | 0.00706 |
| ISY1 | 23.4053315 | 22.40418 |
| ISYNA1 | 1.64746429 | 2.395055 |
| ITCH | 27.5613446 | 26.35637 |
| ITFG1 | 3.95283751 | 4.062821 |
| ITFG2 | 5.1221804 | 4.233927 |
| ITFG3 | 9.16653149 | 9.134922 |
| ITGA1 | 0.24111618 | 0.169327 |
| ITGA10 | 0.07320231 | 0.097019 |
| ITGA11 | 0.00839502 | 0.014305 |
| ITGA2 | 0.02137535 | 0.036424 |
| ITGA2B | 2.25136267 | 2.034604 |

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| ITGA3 | 0.01254744 | 0.009503 |
| ITGA4 | 35.7693357 | 27.96152 |
| ITGA5 | 8.51402226 | 16.97248 |
| ITGA6 | 7.30277416 | 6.215884 |
| ITGA7 | 0.12858073 | 0.20558 |
| ITGA8 | 0 | 0 |
| ITGA9 | 0.04245397 | 0.030143 |
| ITGAD | 0.13973891 | 0.201485 |
| ITGAE | 4.48714652 | 4.30563 |
| ITGAL | 62.4342137 | 50.85158 |
| ITGAM | 87.1872855 | 87.06329 |
| ITGAV | 2.45572599 | 3.230404 |
| ITGAX | 203.745361 | 193.7576 |
| ITGB1 | 7.3108993 | 7.714981 |
| ITGB1BP1 | 5.58859833 | 4.220115 |
| ITGB1BP2 | 0.20429471 | 0.251422 |
| ITGB1BP3 | 0.01867259 | 0.042425 |
| ITGB2 | 464.028987 | 458.7035 |
| ITGB3 | 0.00859229 | 0.019522 |
| ITGB3BP | 0.33487444 | 0.35325 |
| ITGB4 | 0.11761455 | 0.16505 |
| ITGB5 | 0.03741162 | 0.007083 |
| ITGB6 | 0.01754304 | 0 |
| ITGB7 | 122.214004 | 121.727 |
| ITGB8 | 0.02155953 | 0.016328 |
| ITGBL1 | 0 | 0 |
| ITIH1 | 0.0072252 | 0.008208 |
| ITIH2 | 0.25713011 | 0.262145 |
| ITIH3 | 0.1523073 | 0.228076 |
| ITIH4 | 7.52655253 | 7.590483 |
| ITIH5 | 0.00284742 | 0.006469 |
| ITIH5L | 0 | 0 |
| ITK | 0.09149823 | 0.120356 |
| ITLN1 | 0.03557586 | 0 |
| ITLN2 | 0.16454607 | 0.041539 |
| ITM2A | 12.3604156 | 16.23197 |
| ITM2B | 431.839894 | 406.8405 |
| ITM2C | 75.0035323 | 72.27752 |
| ITPA | 5.0834578 | 3.715461 |
| ITPK1 | 35.2685692 | 44.36833 |
| ITPKA | 0.01185862 | 0.026943 |
| ITPKB | 66.9623694 | 67.03103 |
| ITPKC | 2.2484992 | 1.644086 |
| ITPR1 | 10.9349637 | 8.518974 |
| ITPR2 | 6.86568732 | 6.682053 |
| ITPR3 | 0.2934092 | 0.34919 |
| ITPRIP | 31.6488082 | 32.39596 |

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| ITPRIPL1 | 0.00883417 | 0.040143 |
| ITPRIPL2 | 0.03837239 | 0.040478 |
| ITSN1 | 2.0493814 | 1.366837 |
| ITSN2 | 30.7828569 | 30.50686 |
| IVD | 1.86912915 | 1.498209 |
| IVL | 0.01969586 | 0 |
| IVNS1ABP | 85.0476891 | 89.35727 |
| IWS1 | 17.107611 | 15.26258 |
| IYD | 0.00568175 | 0 |
| IZUMO1 | 0 | 0 |
| JAG1 | 6.56361175 | 7.077365 |
| JAG2 | 0.06626065 | 0.221115 |
| JAGN1 | 4.31905895 | 3.741041 |
| JAK1 | 101.76876 | 102.8483 |
| JAK2 | 15.2488351 | 13.01592 |
| JAK3 | 0.16244737 | 0.232875 |
| JAKMIP1 | 0.00635975 | 0.007225 |
| JAKMIP2 | 0.03779269 | 0.014311 |
| JAKMIP3 | 0.59716916 | 0.499373 |
| JAM2 | 0.01241898 | 0 |
| JAM3 | 0.21799797 | 0.247649 |
| JARID2 | 18.9469061 | 15.91787 |
| JAZF1 | 20.8939226 | 25.29582 |
| JDP2 | 47.732519 | 73.92425 |
| JHDM1D | 6.36166312 | 9.899647 |
| JMJD1C | 19.2105034 | 16.25974 |
| JMJD4 | 1.0059178 | 0.946038 |
| JMJD5 | 0.60589464 | 0.607855 |
| JMJD6 | 20.7787966 | 29.58677 |
| JMJD7 | 2.01086147 | 2.066012 |
| JMJD7-PLA2G4B | 8.04919858 | 7.625926 |
| JMJD8 | 1.72980196 | 1.614175 |
| JMY | 1.82336625 | 1.829844 |
| JOSD1 | 60.4929682 | 78.67832 |
| JOSD2 | 5.52290878 | 4.565814 |
| JPH1 | 0 | 0 |
| JPH2 | 0 | 0.016082 |
| JPH3 | 0.01052056 | 0.011952 |
| JPH4 | 0.01917495 | 0.021783 |
| JRK | 2.34511533 | 2.00658 |
| JRKL | 0.85397003 | 0.682432 |
| JSRP1 | 0.01906195 | 0.021655 |
| JTB | 60.578066 | 55.23621 |
| JTV1 | 0.91414482 | 0.48985 |
| JUB | 0.05757938 | 0.075474 |
| JUN | 3.08135305 | 6.361216 |
| JUNB | 147.142583 | 197.473 |

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| JUND | 54.0362249 | 73.5457 |
| JUP | 6.47901447 | 4.677614 |
| KAAG1 | 0 | 0 |
| KAL1 | 0.20978712 | 0.321545 |
| KALP | 0 | 0 |
| KALRN | 0.00168783 | 0.005752 |
| KANK1 | 0.1009713 | 0.154411 |
| KANK2 | 0.17115903 | 0.247468 |
| KANK3 | 0.14333738 | 0.111412 |
| KANK4 | 0.00383884 | 0.021805 |
| KARS | 17.0081793 | 14.86693 |
| KAT | 16.9952155 | 16.21916 |
| KAT2A | 0.41212892 | 0.521911 |
| KAT2B | 11.0400421 | 10.75424 |
| KAT5 | 22.2973907 | 20.25177 |
| KATNA1 | 6.42786252 | 6.532679 |
| KATNAL1 | 0.25448368 | 0.213681 |
| KATNAL2 | 0.03351541 | 0.025383 |
| KATNB1 | 8.73274328 | 8.665799 |
| KAZALD1 | 0.25089894 | 0.351531 |
| KBTBD10 | 0 | 0.019387 |
| KBTBD11 | 25.1571512 | 28.4758 |
| KBTBD2 | 31.2092985 | 35.03579 |
| KBTBD3 | 0.83485124 | 0.829854 |
| KBTBD4 | 7.1621989 | 6.688212 |
| KBTBD5 | 0 | 0.009874 |
| KBTBD6 | 0.58314326 | 0.657891 |
| KBTBD7 | 3.71035252 | 3.360839 |
| KBTBD8 | 1.46180014 | 1.200205 |
| KC6 | 0 | 0 |
| KCMF1 | 12.9859882 | 14.0123 |
| KCNA1 | 0.00526753 | 0.002992 |
| KCNA10 | 0 | 0 |
| KCNA2 | 0 | 0.01124 |
| KCNA3 | 0.04398605 | 0.049969 |
| KCNA4 | 0.01163871 | 0 |
| KCNA5 | 0 | 0 |
| KCNA6 | 0.00351712 | 0.003996 |
| KCNA7 | 0 | 0.005463 |
| KCNAB1 | 0.26499194 | 0.179722 |
| KCNAB2 | 135.195994 | 143.0395 |
| KCNAB3 | 4.96867274 | 4.471031 |
| KCNB1 | 0 | 0 |
| KCNB2 | 0.00586972 | 0.020004 |
| KCNC1 | 0.00753956 | 0.008565 |
| KCNC2 | 0.00575406 | 0.006537 |
| KCNC3 | 0.02648027 | 0.037603 |

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| KCNC4 | 0.7039127 | 0.602818 |
| KCND1 | 1.49226396 | 1.685115 |
| KCND2 | 0 | 0.004479 |
| KCND3 | 0.0078074 | 0.008869 |
| KCNE1 | 0.69583436 | 0.701945 |
| KCNE1L | 2.31063364 | 1.907548 |
| KCNE2 | 0.07855043 | 0.118979 |
| KCNE3 | 45.3243128 | 45.45951 |
| KCNE4 | 0.00710075 | 0 |
| KCNF1 | 0.00918538 | 0.010435 |
| KCNG1 | 0.01894174 | 0 |
| KCNG2 | 0.07503687 | 0.170486 |
| KCNG3 | 0.02199302 | 0 |
| KCNG4 | 0 | 0 |
| KCNH1 | 0 | 0.005893 |
| KCNH2 | 38.6250472 | 49.1614 |
| KCNH3 | 1.08046082 | 1.091041 |
| KCNH4 | 0.25745303 | 0.560569 |
| KCNH5 | 0.00547107 | 0.006215 |
| KCNH6 | 0.01169048 | 0.013281 |
| KCNH7 | 0.29729837 | 0.143953 |
| KCNH8 | 0.02076371 | 0.014153 |
| KCNIP1 | 0.00988497 | 0.011229 |
| KCNIP2 | 1.77496453 | 2.094274 |
| KCNIP3 | 0.01393791 | 0.007917 |
| KCNIP4 | 0.0711999 | 0.064707 |
| KCNJ1 | 0.10379218 | 0.185286 |
| KCNJ10 | 0 | 0 |
| KCNJ11 | 0.00616217 | 0.007 |
| KCNJ12 | 0.00402014 | 0.009134 |
| KCNJ13 | 0 | 0 |
| KCNJ14 | 0.01817752 | 0.027533 |
| KCNJ15 | 0.01394253 | 0.007919 |
| KCNJ16 | 0.00496935 | 0.005645 |
| KCNJ2 | 1.13555518 | 0.913202 |
| KCNJ3 | 0 | 0 |
| KCNJ4 | 0 | 0 |
| KCNJ5 | 0.00722024 | 0 |
| KCNJ6 | 0 | 0.009612 |
| KCNJ8 | 7.88560292 | 8.255962 |
| KCNJ9 | 0.00694134 | 0.007885 |
| KCNK1 | 0 | 0.011053 |
| KCNK10 | 0.00514192 | 0.008762 |
| KCNK12 | 0.02950924 | 0.050284 |
| KCNK13 | 0 | 0.00949 |
| KCNK15 | 0 | 0 |
| KCNK16 | 0 | 0 |

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| KCNK17 | 0.01224539 | 0 |
| KCNK18 | 0 | 0 |
| KCNK2 | 0 | 0 |
| KCNK3 | 0.0105708 | 0 |
| KCNK4 | 0.0116162 | 0.013196 |
| KCNK5 | 0.01667354 | 0.056824 |
| KCNK6 | 26.8665789 | 34.66035 |
| KCNK7 | 2.52895855 | 2.70484 |
| KCNK9 | 0.01613609 | 0.018331 |
| KCNMA1 | 0.00437815 | 0.006632 |
| KCNMB1 | 0 | 0 |
| KCNMB2 | 0 | 0 |
| KCNMB3 | 1.1711539 | 0.999805 |
| KCNMB3L | 0 | 0 |
| KCNMB4 | 0.02578213 | 0.117156 |
| KCNN1 | 0.00791318 | 0.035958 |
| KCNN2 | 0.00721281 | 0.016388 |
| KCNN3 | 0.00651342 | 0.007399 |
| KCNN4 | 0.03754523 | 0.021326 |
| KCNQ1 | 8.1775168 | 9.139953 |
| KCNQ1DN | 0 | 0 |
| KCNQ1OT1 | 0 | 0 |
| KCNQ2 | 0.00621867 | 0 |
| KCNQ3 | 0.00678893 | 0.015425 |
| KCNQ4 | 0.06303097 | 0.081833 |
| KCNQ5 | 0.11382134 | 0.122119 |
| KCNRG | 0.14232532 | 0.220478 |
| KCNS1 | 0.03242505 | 0.031573 |
| KCNS2 | 0 | 0.007539 |
| KCNS3 | 0 | 0.010251 |
| KCNT1 | 0.03487511 | 0.029714 |
| KCNT2 | 0 | 0 |
| KCNU1 | 0 | 0.006383 |
| KCNV1 | 0 | 0 |
| KCNV2 | 0 | 0 |
| KCP | 0.0155772 | 0.008848 |
| KCTD1 | 0.01538064 | 0.011648 |
| KCTD10 | 16.2271068 | 22.12832 |
| KCTD11 | 7.68497863 | 16.55388 |
| KCTD12 | 8.69060497 | 9.64672 |
| KCTD13 | 10.5494659 | 10.92528 |
| KCTD14 | 0.05032994 | 0.07147 |
| KCTD15 | 6.62050669 | 12.71742 |
| KCTD16 | 0.00405659 | 0.004608 |
| KCTD17 | 0.01243367 | 0 |
| KCTD18 | 5.34930189 | 5.028872 |
| KCTD19 | 0 | 0.01641 |

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| KCTD2 | 13.3497775 | 12.05236 |
| KCTD20 | 39.9640508 | 39.71173 |
| KCTD21 | 2.45855705 | 2.036386 |
| KCTD3 | 0.01604579 | 0.024304 |
| KCTD4 | 0 | 0 |
| KCTD5 | 19.5229119 | 30.16913 |
| KCTD6 | 1.62072556 | 1.528046 |
| KCTD7 | 4.43323463 | 3.449469 |
| KCTD8 | 0.01621699 | 0 |
| KCTD9 | 8.52225069 | 8.879994 |
| KCTD9P2 | 0 | 0 |
| KDELC1 | 0 | 0 |
| KDELC2 | 0.11705125 | 0.099729 |
| KDELR1 | 9.5741552 | 8.329874 |
| KDELR2 | 28.9061543 | 40.7049 |
| KDELR3 | 0.1682924 | 0.191183 |
| KDM1 | 11.109424 | 11.87949 |
| KDM2A | 37.551038 | 38.10463 |
| KDM2B | 14.0254701 | 21.95876 |
| KDM3A | 27.8092478 | 31.45262 |
| KDM3B | 27.3887879 | 24.3619 |
| KDM4A | 13.1169341 | 11.39429 |
| KDM4B | 43.438844 | 48.55446 |
| KDM4C | 9.62099641 | 9.083214 |
| KDM4D | 0.01413943 | 0.024094 |
| KDM5A | 18.7752955 | 17.42064 |
| KDM5B | 11.2620408 | 11.559 |
| KDM5C | 23.6221723 | 22.72146 |
| KDM5D | 0.00376731 | 0.00428 |
| KDM5DP1 | 0 | 0 |
| KDM6A | 17.0548509 | 16.86275 |
| KDM6B | 67.0590135 | 95.97866 |
| KDR | 0.00347239 | 0.003945 |
| KDSR | 0.16179554 | 0.252728 |
| KEAP1 | 11.6374934 | 10.85044 |
| KEL | 0.00825494 | 0 |
| KERA | 0 | 0 |
| KGFLP1 | 0 | 0 |
| KGFLP2 | 0 | 0 |
| KHDC1 | 0.01854086 | 0 |
| KHDRBS1 | 33.3586257 | 31.8646 |
| KHDRBS2 | 0 | 0 |
| KHDRBS3 | 0.90246694 | 0.610248 |
| KHK | 0.03298091 | 0.046834 |
| KHSRP | 15.281164 | 14.29143 |
| KIAA0020 | 1.25849191 | 0.945945 |
| KIAA0040 | 0 | 0 |

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| KIAA0087 | 0 | 0 |
| KIAA0090 | 2.21763165 | 1.758413 |
| KIAA0100 | 33.8114258 | 29.05684 |
| KIAA0101 | 0.11183687 | 0.015881 |
| KIAA0114 | 0 | 0 |
| KIAA0125 | 0 | 0 |
| KIAA0141 | 12.3446427 | 10.50694 |
| KIAA0146 | 5.05391496 | 4.992136 |
| KIAA0174 | 73.843755 | 72.53996 |
| KIAA0182 | 34.1017195 | 49.32033 |
| KIAA0195 | 16.3846741 | 14.79268 |
| KIAA0196 | 8.96327119 | 9.024283 |
| KIAA0226 | 13.9672855 | 11.66744 |
| KIAA0232 | 13.130465 | 12.52456 |
| KIAA0240 | 8.61344717 | 8.424863 |
| KIAA0247 | 92.4132107 | 100.9791 |
| KIAA0284 | 0.34617369 | 0.353933 |
| KIAA0317 | 30.7367556 | 25.35901 |
| KIAA0319 | 0 | 0.00351 |
| KIAA0319L | 9.34362937 | 8.627364 |
| KIAA0323 | 36.821045 | 33.3959 |
| KIAA0355 | 1.42832564 | 1.458196 |
| KIAA0368 | 8.54269637 | 8.104973 |
| KIAA0391 | 1.61051941 | 1.244111 |
| KIAA0406 | 5.07100471 | 4.711115 |
| KIAA0408 | 0 | 0 |
| KIAA0415 | 31.268814 | 32.78624 |
| KIAA0427 | 3.58369902 | 4.670319 |
| KIAA0430 | 66.2836618 | 67.98973 |
| KIAA0467 | 3.64450045 | 3.188733 |
| KIAA0494 | 30.9346165 | 30.27573 |
| KIAA0495 | 4.12702313 | 3.617704 |
| KIAA0513 | 42.5790801 | 39.78797 |
| KIAA0528 | 3.9207854 | 2.86643 |
| KIAA0556 | 6.10156819 | 5.91087 |
| KIAA0562 | 8.72000292 | 8.228576 |
| KIAA0564 | 0.08224098 | 0.054768 |
| KIAA0574 | 0.00446682 | 0.005074 |
| KIAA0586 | 1.5794382 | 1.290163 |
| KIAA0644 | 0.00831698 | 0 |
| KIAA0649 | 6.11746754 | 6.780039 |
| KIAA0652 | 21.461689 | 21.28516 |
| KIAA0664 | 1.67027419 | 1.559116 |
| KIAA0664P1 | 0 | 0 |
| KIAA0664P2 | 0 | 0 |
| KIAA0746 | 0.39748922 | 0.441053 |
| KIAA0748 | 0.32424607 | 0.218707 |

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| KIAA0753 | 1.72331421 | 1.141999 |
| KIAA0754 | 0 | 0 |
| KIAA0774 | 0.01753085 | 0.019915 |
| KIAA0776 | 8.50811063 | 8.609088 |
| KIAA0802 | 2.16741757 | 3.04641 |
| KIAA0831 | 3.81311359 | 3.656809 |
| KIAA0892 | 31.336538 | 28.99386 |
| KIAA0895 | 0.18945903 | 0.089241 |
| KIAA0895L | 0.63694385 | 0.674403 |
| KIAA0907 | 13.4576397 | 12.45756 |
| KIAA0913 | 32.5271058 | 31.01994 |
| KIAA0922 | 15.5721475 | 11.54764 |
| KIAA0947 | 6.12066025 | 5.194514 |
| KIAA0999 | 17.2941922 | 16.63575 |
| KIAA1009 | 3.38009408 | 3.040261 |
| KIAA1012 | 12.3112827 | 11.29711 |
| KIAA1024 | 5.63523777 | 3.503763 |
| KIAA1024L | 0 | 0 |
| KIAA1026 | 0.01122189 | 0.005099 |
| KIAA1033 | 22.9186244 | 26.3279 |
| KIAA1045 | 0.00719184 | 0.004085 |
| KIAA1107 | 0.16613519 | 0.136307 |
| KIAA1109 | 26.1925275 | 21.85837 |
| KIAA1128 | 6.00136792 | 6.867436 |
| KIAA1143 | 6.91574298 | 6.732061 |
| KIAA1147 | 7.86144502 | 10.25659 |
| KIAA1161 | 0.12008756 | 0.073895 |
| KIAA1191 | 15.1593528 | 14.08782 |
| KIAA1199 | 0.21381693 | 0.226031 |
| KIAA1210 | 0 | 0 |
| KIAA1211 | 0.00299805 | 0.013623 |
| KIAA1217 | 0.00501021 | 0.008538 |
| KIAA1219 | 16.6844133 | 15.19509 |
| KIAA1239 | 0 | 0.003194 |
| KIAA1244 | 0.00237655 | 0 |
| KIAA1257 | 0.7723591 | 0.571014 |
| KIAA1267 | 19.8645531 | 20.112 |
| KIAA1274 | 0.04601736 | 0.031366 |
| KIAA1279 | 0.92318502 | 0.736961 |
| KIAA1303 | 1.5272192 | 1.55727 |
| KIAA1305 | 0.016056 | 0.01216 |
| KIAA1310 | 12.5117627 | 13.72998 |
| KIAA1324 | 0.0309378 | 0.035146 |
| KIAA1324L | 0.05445566 | 0.037117 |
| KIAA1328 | 0.37684462 | 0.378894 |
| KIAA1370 | 47.6398002 | 55.90373 |
| KIAA1377 | 0.13433763 | 0.088174 |

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| KIAA1383 | 0.38157796 | 0.394071 |
| KIAA1407 | 0.51822999 | 0.462564 |
| KIAA1409 | 0.02482036 | 0.025377 |
| KIAA1429 | 9.59874946 | 9.059044 |
| KIAA1430 | 0.49988489 | 0.558086 |
| KIAA1432 | 6.47794053 | 5.413346 |
| KIAA1462 | 0.01389278 | 0.037878 |
| KIAA1467 | 0.36150537 | 0.334625 |
| KIAA1468 | 13.188056 | 12.4418 |
| KIAA1486 | 0 | 0.005204 |
| KIAA1522 | 0.01942473 | 0.022067 |
| KIAA1524 | 1.09388879 | 0.744485 |
| KIAA1529 | 0.21129301 | 0.171452 |
| KIAA1530 | 7.56280929 | 7.378016 |
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| KIAA1543 | 0.06028769 | 0.039951 |
| KIAA1549 | 0.15271012 | 0.165856 |
| KIAA1586 | 1.28504267 | 1.171162 |
| KIAA1598 | 0.01599695 | 0.018173 |
| KIAA1602 | 2.07678779 | 2.64686 |
| KIAA1609 | 0.95284744 | 0.82608 |
| KIAA1614 | 0.23277141 | 0.224192 |
| KIAA1618 | 5.93833154 | 6.364272 |
| KIAA1632 | 10.1881289 | 8.112811 |
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| KIAA1841 | 1.01317718 | 1.189928 |
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| KIAA1958 | 2.99354321 | 4.201928 |
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| KIF12 | 0 | 0.011925 |
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| KIF3B | 7.20366493 | 9.181463 |
| KIF3C | 0.80911327 | 0.606913 |
| KIF4A | 0.00945596 | 0.021484 |
| KIF4B | 0 | 0 |
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| KIF5B | 23.7244565 | 22.37226 |
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| KIF5C (NC_00000 | 0.52303486 | 0.228529 |
| KIF6 | 0.00529339 | 0.006013 |

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| KIF7 | 0 | 0.00524 |
| KIF9 | 0.21007824 | 0.245281 |
| KIFAP3 | 4.67931123 | 3.538535 |
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| KIFC2 | 5.22396616 | 5.478573 |
| KIFC3 | 1.89953772 | 4.071033 |
| KILLIN | 0.11798175 | 0.027923 |
| KIN | 8.63737363 | 8.333472 |
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| KIR2DL3 | 0.0790426 | 0.014966 |
| KIR2DL4 | 0.0266312 | 0.04538 |
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| KIR2DS4 | 0.02688661 | 0 |
| KIR3DL1 | 0 | 0 |
| KIR3DL2 | 0.01120156 | 0 |
| KIR3DL3 | 0 | 0 |
| KIR3DP1 | 0 | 0 |
| KIR3DX1 | 0 | 0 |
| KIRREL | 0 | 0.006609 |
| KIRREL2 | 0.03512417 | 0.00798 |
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| KIT | 52.043381 | 41.03292 |
| KITLG | 0 | 0 |
| KL | 0 | 0.004771 |
| KLB | 0.00345868 | 0.003929 |
| KLC1 | 23.1758002 | 22.17579 |
| KLC2 | 0.89401071 | 0.694122 |
| KLC3 | 0.01172634 | 0.013321 |
| KLC4 | 7.50810342 | 7.771662 |
| KLF1 | 0.03905634 | 0.029579 |
| KLF10 | 6.67061333 | 15.20469 |
| KLF11 | 1.65907078 | 1.706926 |
| KLF12 | 0.13491366 | 0.137938 |
| KLF13 | 73.8854866 | 91.35703 |
| KLF14 | 0 | 0 |
| KLF15 | 0.07494177 | 0.047297 |
| KLF16 | 7.57407142 | 9.530878 |
| KLF17 | 0.00671521 | 0.015257 |
| KLF2 | 16.8202648 | 11.21373 |
| KLF3 | 46.7387678 | 66.8145 |
| KLF4 | 0.03584271 | 0.138441 |
| KLF5 | 2.76781223 | 1.84664 |
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| KLF7 | 31.8907705 | 33.43041 |
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| KLF8 | 0.09091142 | 0.07511 |
| KLF9 | 1.67136848 | 1.811563 |
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| KLHDC10 | 9.5933069 | 8.964262 |
| KLHDC2 | 22.9928176 | 23.42222 |
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| KLHDC4 | 4.65608983 | 4.626625 |
| KLHDC5 | 1.75509023 | 1.654124 |
| KLHDC6 | 0 | 0 |
| KLHDC7A | 0.03317606 | 0.014133 |
| KLHDC7B | 0.99116405 | 1.349577 |
| KLHDC8A | 0.01682026 | 0.038216 |
| KLHDC8B | 27.1645103 | 21.26824 |
| KLHDC9 | 0.01542577 | 0 |
| KLHL1 | 0.00506634 | 0 |
| KLHL10 | 0.01046557 | 0.011889 |
| KLHL11 | 2.32309117 | 2.392618 |
| KLHL12 | 11.3818973 | 9.989099 |
| KLHL13 | 0.37004582 | 0.252227 |
| KLHL14 | 0.00493437 | 0 |
| KLHL15 | 4.19330925 | 4.674625 |
| KLHL17 | 0.98556239 | 1.278227 |
| KLHL18 | 5.50324469 | 5.44819 |
| KLHL2 | 9.02534303 | 9.600124 |
| KLHL20 | 4.96498866 | 4.88183 |
| KLHL21 | 34.0800606 | 34.97862 |
| KLHL22 | 7.08213056 | 5.320203 |
| KLHL23 | 0.10460364 | 0.086423 |
| KLHL24 | 18.6764364 | 20.78666 |
| KLHL25 | 0.37677758 | 0.376143 |
| KLHL26 | 2.04057504 | 2.103909 |
| KLHL28 | 5.38872396 | 4.65962 |
| KLHL29 | 0.04903088 | 0.020254 |
| KLHL3 | 1.78866686 | 1.242335 |
| KLHL30 | 0.00591097 | 0 |
| KLHL31 | 0.00732207 | 0.004159 |
| KLHL32 | 0.00552281 | 0.012548 |
| KLHL33 | 0.0154371 | 0 |
| KLHL34 | 0 | 0.00841 |
| KLHL35 | 0 | 0.015955 |
| KLHL36 | 10.5562865 | 9.536424 |
| KLHL38 | 0 | 0 |
| KLHL4 | 0 | 0.004079 |
| KLHL5 | 13.947673 | 14.13966 |
| KLHL6 | 122.149854 | 140.7634 |
| KLHL7 | 9.06351933 | 7.740277 |
| KLHL8 | 3.35412841 | 2.688119 |

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| KLHL9 | 5.94256294 | 4.736961 |
| KLK1 | 0 | 0 |
| KLK10 | 0.01919537 | 0 |
| KLK11 | 0 | 0.016552 |
| KLK12 | 0 | 0 |
| KLK13 | 0.0167133 | 0 |
| KLK14 | 0.01855722 | 0.084325 |
| KLK15 | 0.01606213 | 0 |
| KLK2 | 0 | 0 |
| KLK3 | 0 | 0 |
| KLK4 | 0 | 0 |
| KLK5 | 0 | 0 |
| KLK6 | 0 | 0 |
| KLK7 | 0 | 0 |
| KLK8 | 0 | 0 |
| KLK9 | 0 | 0 |
| KLKB1 | 0 | 0 |
| KLKBL4 | 0 | 0 |
| KLKP1 | 0 | 0 |
| KLRA1 | 0.25710323 | 0.248803 |
| KLRAQ1 | 12.3832582 | 11.82719 |
| KLRB1 | 0.14206305 | 0.193663 |
| KLRC1 | 0.04371171 | 0.049657 |
| KLRC2 | 0.01721976 | 0.078248 |
| KLRC3 | 0.0550882 | 0.041721 |
| KLRC4 | 0.04531321 | 0.051477 |
| KLRD1 | 0.11280356 | 0.113908 |
| KLRF1 | 0.27151356 | 0.366277 |
| KLRG1 | 0.03521831 | 0.013336 |
| KLRG2 | 0.02723488 | 0.01547 |
| KLRK1 | 0.21345514 | 0.303111 |
| KMO | 0.05030986 | 0.057153 |
| KNCN | 0 | 0.009985 |
| KNDC1 | 0 | 0.01058 |
| KNG1 | 0 | 0.009965 |
| KNTC1 | 0.85429557 | 0.685861 |
| KPNA1 | 14.6466197 | 14.38515 |
| KPNA2 | 8.00661593 | 6.417615 |
| KPNA3 | 6.8048009 | 9.967255 |
| KPNA4 | 20.6658763 | 22.20147 |
| KPNA5 | 2.81571856 | 2.324316 |
| KPNA6 | 11.5093226 | 10.93992 |
| KPNA7 | 0.01247794 | 0 |
| KPNB1 | 52.405675 | 46.15551 |
| KPRP | 0 | 0 |
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| KRAS | 11.7557237 | 14.02881 |

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| KRAS1P | 0 | 0 |
| KRBA1 | 0.48129645 | 0.647792 |
| KRBA2 | 1.30605416 | 0.851302 |
| KRCC1 | 16.5396072 | 13.66615 |
| KREMEN1 | 0.04804821 | 0.048162 |
| KREMEN2 | 0.02047257 | 0 |
| KRI1 | 4.94672512 | 5.524177 |
| KRIT1 | 6.09369805 | 5.914767 |
| KRR1 | 4.89776849 | 4.418425 |
| KRT1 | 0.01715653 | 0 |
| KRT10 | 4.66683748 | 4.018056 |
| KRT12 | 0.01055489 | 0 |
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| KRT14 | 0.01285167 | 0 |
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| KRT15 | 0.02285362 | 0.012981 |
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| KRT18 | 0.41091852 | 0.155603 |
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| KRT3 | 0.01820375 | 0 |
| KRT31 | 0.01317377 | 0.014966 |
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| KRT4 | 0.00816201 | 0 |
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| KRT42P | 0 | 0 |
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| KRT6C | 0.00918538 | 0 |
| KRT7 | 0 | 0 |
| KRT71 | 0 | 0 |
| KRT72 | 0 | 0.060164 |
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| KRT74 | 0.00754137 | 0 |
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| KRT76 | 0 | 0 |
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| KRT81 | 0.05504013 | 0.062526 |
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| KRT8P12 | 0 | 0 |
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| KRT8P26 | 0 | 0 |
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| KRT8P28 | 0 | 0 |
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| KRTAP2-2 | 0 | 0 |
| KRTAP22-1 | 0 | 0 |
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| KRTAP2-4 | 0 | 0 |
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| KRTAP25-1 | 0 | 0 |
| KRTAP26-1 | 0 | 0.020608 |
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| KRTAP4-12 | 0 | 0 |
| KRTAP4-2 | 0 | 0.031304 |
| KRTAP4-3 | 0 | 0 |
| KRTAP4-4 | 0.01948594 | 0 |
| KRTAP4-5 | 0 | 0 |
| KRTAP4-7 | 0 | 0 |
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| KRTAP9-4 | 0.02174284 | 0 |
| KRTAP9-8 | 0 | 0 |
| KRTAP9-9 | 0.02282881 | 0 |
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| KRTDAP | 0 | 0 |
| KSR1 | 39.4944761 | 30.93204 |
| KSR2 | 0.00370861 | 0.002809 |
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| KTI12 | 0 | 0 |
| KTN1 | 29.9053557 | 39.26239 |
| KU-MEL-3 | 0 | 0 |
| KY | 0.6192594 | 0.301495 |
| KYNU | 0.16357882 | 0.099108 |
| L1CAM | 0.13796698 | 0.142484 |
| L1TD1 | 0.01090525 | 0.012389 |
| L2HGDH | 1.47643013 | 1.732111 |
| L3MBTL | 0.99580404 | 0.980893 |
| L3MBTL2 | 4.45931988 | 3.793781 |
| L3MBTL3 | 6.09734598 | 5.613001 |
| L3MBTL4 | 0.00586154 | 0.006659 |
| LACE1 | 0.21378542 | 0.137271 |
| LACRT | 0 | 0 |
| LACTB | 15.5702711 | 17.68807 |
| LACTB2 | 1.38092966 | 0.968939 |
| LAD1 | 0 | 0.016826 |
| LAG3 | 0.03166466 | 0.023981 |
| LAGE3 | 0.91464821 | 0.815461 |
| LAIR1 | 20.9581335 | 29.8479 |
| LAIR2 | 0.36094989 | 0.990942 |
| LALBA | 0 | 0 |
| LAMA1 | 0.00662911 | 0.010041 |
| LAMA2 | 0.03904425 | 0.034498 |
| LAMA3 | 0.00392923 | 0 |
| LAMA4 | 0.00281238 | 0 |
| LAMA5 | 0.05336378 | 0.04808 |

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| LAMB1 | 0.46754927 | 0.335029 |
| LAMB2 | 0.01086019 | 0.008225 |
| LAMB2L | 0 | 0 |
| LAMB3 | 0.02804624 | 0.026551 |
| LAMB4 | 0.05024832 | 0.044851 |
| LAMC1 | 0.29849627 | 0.272488 |
| LAMC2 | 0 | 0.011019 |
| LAMC3 | 0 | 0.003917 |
| LAMP1 | 59.2185896 | 57.36188 |
| LAMP2 | 22.8550812 | 19.66171 |
| LAMP3 | 0.49715688 | 0.529033 |
| LANCL1 | 1.94746558 | 1.751229 |
| LANCL2 | 0.92254496 | 0.746238 |
| LANCL3 | 0.23354465 | 0.13624 |
| LAP3 | 13.4461998 | 16.20775 |
| LAPTM4A | 60.2170244 | 49.01522 |
| LAPTM4B | 0.77975982 | 1.05658 |
| LAPTM5 | 1638.89639 | 1825.238 |
| LARGE | 0.03002904 | 0.045485 |
| LARP1 | 7.77807564 | 7.11301 |
| LARP2 | 0.54506025 | 0.506235 |
| LARP4 | 2.37906261 | 2.403997 |
| LARP5 | 33.5436043 | 30.77114 |
| LARP6 | 0 | 0.010194 |
| LARP7 | 16.28297 | 15.06312 |
| LARS | 2.21570306 | 1.896425 |
| LARS2 | 0.48023597 | 0.420532 |
| LAS1L | 4.1043767 | 4.100406 |
| LASP1 | 124.386656 | 145.1998 |
| LASS1 | 0.01174928 | 0.020021 |
| LASS1-GDF1 | 0 | 0 |
| LASS2 | 54.4979936 | 59.87964 |
| LASS3 | 0.01079883 | 0.012268 |
| LASS4 | 22.0899047 | 31.9695 |
| LASS5 | 14.9763551 | 13.96474 |
| LASS6 | 0.92714353 | 0.973111 |
| LAT | 1.98287674 | 2.56328 |
| LAT2 | 106.594877 | 176.909 |
| LATS1 | 6.88905692 | 6.911863 |
| LATS2 | 7.82523142 | 7.665814 |
| LAX1 | 0.07650211 | 0.09415 |
| LAYN | 0.01017683 | 0 |
| LBA1 | 38.2455148 | 40.03881 |
| LBH | 0.27194097 | 0.373967 |
| LBP | 0.02306674 | 0 |
| LBR | 26.9117774 | 19.49842 |
| LBX1 | 0.01636213 | 0.037175 |

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| LBX2 | 0.07240128 | 0.065799 |
| LBXCOR1 | 0.09881754 | 0.094988 |
| LCA5 | 0.00891093 | 0.005061 |
| LCA5L | 0.35575856 | 0.444562 |
| LCAP | 0.04534579 | 0.017171 |
| LCAT | 5.83864434 | 7.285488 |
| LCE1A | 0 | 0 |
| LCE1B | 0 | 0 |
| LCE1C | 0 | 0 |
| LCE1D | 0 | 0 |
| LCE1E | 0 | 0 |
| LCE1F | 0.11778897 | 0 |
| LCE2A | 0 | 0 |
| LCE2B | 0 | 0 |
| LCE2C | 0 | 0 |
| LCE2D | 0 | 0 |
| LCE3A | 0 | 0 |
| LCE3B | 0 | 0 |
| LCE3C | 0 | 0 |
| LCE3D | 0 | 0 |
| LCE3E | 0 | 0 |
| LCE4A | 0 | 0 |
| LCE5A | 0 | 0 |
| LCE6A | 0 | 0 |
| LCEP1 | 0 | 0 |
| LCEP2 | 0 | 0 |
| LCEP3 | 0 | 0 |
| LCEP4 | 0 | 0 |
| LCK | 0.26364051 | 0.278107 |
| LCLAT1 | 0.5567973 | 0.472038 |
| LCMT1 | 5.92392537 | 5.40466 |
| LCMT2 | 1.79414236 | 1.350597 |
| LCN1 | 0.05398031 | 0.030661 |
| LCN10 | 0.01042406 | 0 |
| LCN12 | 0.03051572 | 0.034666 |
| LCN15 | 0 | 0 |
| LCN1L1 | 0 | 0 |
| LCN1L2 | 0 | 0 |
| LCN2 | 0.10231305 | 0.145287 |
| LCN6 | 0 | 0 |
| LCN8 | 0.02290341 | 0 |
| LCN9 | 0 | 0 |
| LCNL1 | 0 | 0 |
| LCOR | 7.0113433 | 7.18925 |
| LCORL | 2.03646907 | 1.693784 |
| LCP1 | 307.641089 | 246.8674 |
| LCP2 | 187.005648 | 205.0944 |

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| LCT | 0.00670237 | 0 |
| LCTL | 0.05928195 | 0.044897 |
| LDB1 | 72.4520477 | 92.39507 |
| LDB2 | 0.0078365 | 0.017805 |
| LDB3 | 0.00984486 | 0.01864 |
| LDHA | 60.2192903 | 90.53192 |
| LDHAL1 | 0 | 0 |
| LDHAL3 | 0 | 0 |
| LDHAL4 | 0 | 0 |
| LDHAL5 | 0 | 0 |
| LDHAL6A | 0.66747082 | 0.480846 |
| LDHAL6B | 0 | 0 |
| LDHB | 6.76102354 | 6.709094 |
| LDHBP | 0 | 0 |
| LDHC | 0.06549947 | 0 |
| LDHD | 1.02736257 | 1.051546 |
| LDLR | 0.09184855 | 0.068049 |
| LDLRAD1 | 0.02678386 | 0 |
| LDLRAD2 | 0.00524061 | 0 |
| LDLRAD3 | 0.39657074 | 0.345928 |
| LDLRAP1 | 0.38683744 | 0.325521 |
| LDOC1 | 0.01522471 | 0.034591 |
| LDOC1L | 0.79378128 | 0.681919 |
| LEAP2 | 0.53529838 | 0.608107 |
| LECT1 | 0.01453029 | 0 |
| LECT2 | 0 | 0 |
| LEF1 | 0.11650281 | 0.062282 |
| LEFTY1 | 0.01301072 | 0.029561 |
| LEFTY2 | 0 | 0 |
| LEFTY3 | 0 | 0 |
| LEKR1 | 0.04378757 | 0.024872 |
| LELP1 | 0 | 0 |
| LEMD1 | 0 | 0 |
| LEMD2 | 22.5812596 | 22.11755 |
| LEMD3 | 12.3740987 | 12.51652 |
| LENEP | 0.0323965 | 0.073606 |
| LENG1 | 7.15806211 | 5.957859 |
| LENG8 | 78.8688233 | 82.19606 |
| LENG9 | 0.24104079 | 0.174253 |
| LEO1 | 3.70977674 | 2.490812 |
| LEP | 0.0061352 | 0 |
| LEPR | 0.38246015 | 0.306026 |
| LEPRE1 | 9.56550798 | 8.474501 |
| LEPREL1 | 0.02137807 | 0 |
| LEPREL2 | 0.04783921 | 0.018115 |
| LEPROT | 4.80264753 | 4.393861 |
| LEPROTL1 | 13.1951156 | 15.69571 |

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| LETM1 | 2.99482012 | 2.85117 |
| LETM1P1 | 0 | 0 |
| LETM1P2 | 0 | 0 |
| LETM1P3 | 0 | 0 |
| LETM2 | 0.14180174 | 0.117156 |
| LETMD1 | 8.5994787 | 7.831 |
| LEUTX | 0 | 0 |
| LFNG | 334.065658 | 381.689 |
| LGALS1 | 27.4308977 | 39.46608 |
| LGALS12 | 180.587682 | 97.10718 |
| LGALS13 | 0 | 0 |
| LGALS14 | 0.03882794 | 0 |
| LGALS2 | 0.0398207 | 0.045237 |
| LGALS3 | 5.55796613 | 8.13397 |
| LGALS3BP | 1.82343578 | 1.986903 |
| LGALS4 | 1.01921073 | 0.952416 |
| LGALS7 | 0 | 0 |
| LGALS7B | 0 | 0 |
| LGALS8 | 23.6742923 | 19.85095 |
| LGALS9 | 70.3824146 | 57.93899 |
| LGALS9B | 0.10148993 | 0.076863 |
| LGALS9C | 0.37916536 | 0.29179 |
| LGI1 | 0 | 0 |
| LGI2 | 0.00995046 | 0.003768 |
| LGI3 | 0.00643764 | 0.007313 |
| LGI4 | 0.00728024 | 0.024811 |
| LGMN | 0.28518924 | 0.245778 |
| LGMN2P | 0 | 0 |
| LGR4 | 0.12021344 | 0.132012 |
| LGR5 | 0.01460092 | 0.008293 |
| LGR6 | 0.01732857 | 0 |
| LGSN | 0.00373187 | 0 |
| LGTN | 1.19313991 | 1.161794 |
| LHB | 0 | 0 |
| LHCGR | 0 | 0 |
| LHFP | 0 | 0 |
| LHFPL1 | 0 | 0.013533 |
| LHFPL2 | 0.87518722 | 1.022633 |
| LHFPL3 | 0.0066159 | 0 |
| LHFPL4 | 0.03015929 | 0.048945 |
| LHFPL5 | 0.02937866 | 0 |
| LHPP | 3.36301016 | 3.257733 |
| LHX1 | 0.00920952 | 0 |
| LHX2 | 0.03481015 | 0.019772 |
| LHX3 | 0.00815251 | 0.009261 |
| LHX4 | 0.24735683 | 0.217137 |
| LHX5 | 0.01008893 | 0 |

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| LHX6 | 0.00625754 | 0.014217 |
| LHX8 | 0 | 0 |
| LHX9 | 0 | 0 |
| LIAS | 2.36990725 | 1.960512 |
| LIF | 1.73288643 | 3.029063 |
| LIFR | 0.00808433 | 0.006888 |
| LIG1 | 3.48489916 | 2.796797 |
| LIG3 | 5.93791116 | 5.872169 |
| LIG4 | 6.44558104 | 6.560458 |
| LILRA1 | 2.19059731 | 1.675709 |
| LILRA2 | 2.09654297 | 1.483463 |
| LILRA3 | 0.03999746 | 0.030292 |
| LILRA4 | 0.0984793 | 0.153827 |
| LILRA5 | 0.02605369 | 0.014799 |
| LILRA6 | 0.27284781 | 0.291727 |
| LILRB1 | 0.08999977 | 0.047188 |
| LILRB2 | 2.85126124 | 1.574208 |
| LILRB3 | 0.90799659 | 0.659483 |
| LILRB4 | 0.06044657 | 0.080113 |
| LILRB5 | 0.00927452 | 0.010536 |
| LILRP1 | 0 | 0 |
| LILRP2 | 0 | 0 |
| LIM2 | 0 | 0 |
| LIMA1 | 0.20170729 | 0.259293 |
| LIMCH1 | 0.00330483 | 0.003754 |
| LIMD1 | 1.54243755 | 1.718025 |
| LIMD2 | 243.743891 | 281.4444 |
| LIME1 | 7.47021767 | 7.828897 |
| LIMK1 | 47.8622855 | 74.18577 |
| LIMK2 | 83.0710445 | 93.75833 |
| LIMS1 | 56.0583938 | 50.6096 |
| LIMS2 | 0.03066034 | 0.017415 |
| LIMS3 | 0.01729057 | 0 |
| LIMS3-LOC4408C | 0 | 0 |
| LIN28 | 0.02619 | 0.029752 |
| LIN28B | 0 | 0 |
| LIN37 | 16.9837951 | 14.30453 |
| LIN52 | 2.02301572 | 1.076026 |
| LIN54 | 4.72335091 | 5.599932 |
| LIN7A | 9.79472735 | 6.89367 |
| LIN7B | 0.47341805 | 0.506175 |
| LIN7C | 4.34199951 | 4.233552 |
| LIN9 | 0.53700515 | 0.760764 |
| LINGO1 | 0.01434197 | 0.008146 |
| LINGO2 | 0 | 0 |
| LINGO3 | 70.0844365 | 83.46332 |
| LINGO4 | 0 | 0 |

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| LINS1 | 4.17732614 | 3.753772 |
| LIPA | 8.19014586 | 4.845342 |
| LIPC | 0 | 0 |
| LIPE | 2.1047428 | 2.265508 |
| LIPF | 0.01404498 | 0 |
| LIPG | 0 | 0 |
| LIPH | 0 | 0.009654 |
| LIPI | 0 | 0 |
| LIPJ | 0 | 0.016095 |
| LIPK | 0 | 0 |
| LIPM | 0 | 0 |
| LIPN | 8.5014705 | 5.866518 |
| LIPT1 | 3.76536834 | 2.621705 |
| LITAF | 106.427113 | 98.52074 |
| LIX1 | 0 | 0.012042 |
| LIX1L | 8.14900408 | 7.296807 |
| LLGL1 | 2.12990335 | 2.272619 |
| LLGL2 | 7.70295733 | 10.9209 |
| LLPH | 7.53249326 | 7.202823 |
| LMAN1 | 1.80900469 | 1.511653 |
| LMAN1L | 0.12111366 | 0.151346 |
| LMAN2 | 42.4867769 | 48.18743 |
| LMAN2L | 2.14298298 | 1.935838 |
| LMBR1 | 5.03490032 | 5.118936 |
| LMBR1L | 44.5701152 | 42.48392 |
| LMBRD1 | 35.2759476 | 36.98151 |
| LMBRD2 | 3.38405852 | 3.268799 |
| LMCD1 | 0 | 0 |
| LMF1 | 0.2743136 | 0.394113 |
| LMF2 | 26.9263456 | 24.58603 |
| LMLN | 0.24687277 | 0.173613 |
| LMNA | 1.95306987 | 1.655121 |
| LMNB1 | 47.3471193 | 38.62061 |
| LMNB2 | 2.99389826 | 3.076464 |
| LMO1 | 0 | 0 |
| LMO2 | 16.3627007 | 14.64532 |
| LMO3 | 0.01083222 | 0 |
| LMO4 | 8.96639924 | 9.792674 |
| LMO7 | 3.71093385 | 6.618224 |
| LMOD1 | 0.01590017 | 0 |
| LMOD2 | 0 | 0 |
| LMOD3 | 0.08719947 | 0.093233 |
| LMTK2 | 0.90451709 | 0.613969 |
| LMTK3 | 0.09303244 | 0.067255 |
| LMX1A | 0.00571341 | 0 |
| LMX1B | 0.00731316 | 0 |
| LNP1 | 0.08535317 | 0.032321 |

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| LNPEP | 6.34487047 | 5.852973 |
| LN1 | 0.53228686 | 0.700886 |
| LN2 | 2.70038077 | 2.958293 |
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| LOH12CR2 | 0 | 0 |
| LOH3CR2A | 0 | 0 |
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| LONP2 | 8.05276955 | 6.837676 |
| LONRF1 | 8.14848904 | 7.657363 |

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| LONRF2 | 1.14859485 | 0.793194 |
| LONRF3 | 0.12898976 | 0.247277 |
| LOR | 0.03421535 | 0.038869 |
| LOX | 0.01076566 | 0.01223 |
| LOXHD1 | 0 | 0.00332 |
| LOXL1 | 0.06233686 | 0.171981 |
| LOXL2 | 1.05954424 | 1.034395 |
| LOXL3 | 0.07410402 | 0.068877 |
| LOXL4 | 0.1494828 | 0.169815 |
| LPA | 0 | 0.011043 |
| LPAL2 | 0 | 0 |
| LPAR1 | 0.54421627 | 0.263882 |
| LPAR2 | 58.2176898 | 63.42321 |
| LPAR3 | 0 | 0.027757 |
| LPAR4 | 0.48821667 | 0.363686 |
| LPAR5 | 0.03600228 | 0.040899 |
| LPCAT1 | 58.2432572 | 52.11627 |
| LPCAT2 | 119.631324 | 109.6906 |
| LPCAT3 | 23.8903412 | 23.86431 |
| LPCAT4 | 5.92852624 | 7.097933 |
| LPGAT1 | 44.7740664 | 39.26218 |
| LPHN1 | 0.69040797 | 0.580636 |
| LPHN2 | 0 | 0 |
| LPHN3 | 0.00343271 | 0 |
| LPIN1 | 27.0292049 | 33.19308 |
| LPIN2 | 74.8392419 | 85.06841 |
| LPIN3 | 0.01927603 | 0.005474 |
| LPL | 0.02805622 | 0.006374 |
| LPO | 0.00720539 | 0 |
| LPP | 0.98189657 | 1.082546 |
| LPPR2 | 30.4475035 | 50.69347 |
| LPPR4 | 0.00845749 | 0 |
| LPXN | 33.6178218 | 27.80147 |
| LQK1 | 0 | 0 |
| LRAT | 0.00430142 | 0.004886 |
| LRBA | 2.66830268 | 2.772667 |
| LRCH1 | 1.25252993 | 1.74993 |
| LRCH2 | 0 | 0 |
| LRCH3 | 9.87017308 | 9.795222 |
| LRCH4 | 78.7875179 | 76.55771 |
| LRDD | 3.04675161 | 3.344227 |
| LRFN1 | 13.4127111 | 17.54778 |
| LRFN2 | 0 | 0.015194 |
| LRFN3 | 0.02507992 | 0 |
| LRFN4 | 0 | 0 |
| LRFN5 | 0.01126759 | 0.0064 |
| LRG1 | 86.9361999 | 94.03755 |

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| LRGUK | 0 | 0.008846 |
| LRIG1 | 13.8947326 | 22.55091 |
| LRIG2 | 3.09488682 | 2.677036 |
| LRIG3 | 0 | 0 |
| LRIT1 | 0 | 0.01038 |
| LRIT2 | 0.00679113 | 0 |
| LRIT3 | 0 | 0.013182 |
| LRLE1 | 0.24167047 | 0.137271 |
| LRMP | 126.009771 | 88.87403 |
| LRP1 | 0.01551685 | 0.01282 |
| LRP10 | 159.235202 | 170.3246 |
| LRP11 | 0.07047597 | 0.033359 |
| LRP12 | 1.15046193 | 1.248857 |
| LRP1B | 0.00127187 | 0.001445 |
| LRP2 | 0 | 0.004554 |
| LRP2BP | 0.02445754 | 0.037046 |
| LRP3 | 0.01705679 | 0.025836 |
| LRP4 | 0.00263475 | 0.002993 |
| LRP5 | 0.28290714 | 0.521672 |
| LRP5L | 8.92445889 | 7.653033 |
| LRP6 | 0 | 0 |
| LRP8 | 0.351411 | 0.642881 |
| LRPAP1 | 207.266909 | 202.6127 |
| LRPPRC | 1.0577784 | 0.927402 |
| LRRC1 | 0.3371987 | 0.270397 |
| LRRC10 | 0.00808978 | 0 |
| LRRC14 | 1.38246587 | 1.238454 |
| LRRC15 | 0 | 0 |
| LRRC16A | 0.00396405 | 0.004503 |
| LRRC16B | 0 | 0.005192 |
| LRRC17 | 0.01050216 | 0.023861 |
| LRRC18 | 0 | 0 |
| LRRC19 | 0 | 0 |
| LRRC2 | 0.00400178 | 0.004546 |
| LRRC20 | 0.03898393 | 0.06643 |
| LRRC23 | 1.35496577 | 1.220794 |
| LRRC24 | 0.27586002 | 0.23163 |
| LRRC25 | 15.9943009 | 18.90532 |
| LRRC26 | 0 | 0 |
| LRRC27 | 0.2115934 | 0.178945 |
| LRRC28 | 4.78507532 | 3.591003 |
| LRRC29 | 0.30981733 | 0.527936 |
| LRRC3 | 0.36930721 | 0.410004 |
| LRRC30 | 0 | 0 |
| LRRC31 | 0 | 0.009643 |
| LRRC32 | 0 | 0.005372 |
| LRRC33 | 16.7946761 | 11.05595 |

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| LRRRC34 | 0.39504797 | 0.315809 |
| LRRRC36 | 0 | 0.029944 |
| LRRRC37A | 1.6529476 | 1.342586 |
| LRRRC37A2 | 0.09344592 | 0.129233 |
| LRRRC37A3 | 2.31594113 | 2.449647 |
| LRRRC37A4 | 0 | 0 |
| LRRRC37B | 6.41803958 | 6.32044 |
| LRRRC37B2 | 0 | 0 |
| LRRRC38 | 0 | 0.010151 |
| LRRRC39 | 0.78542903 | 1.029531 |
| LRRRC3B | 0 | 0 |
| LRRRC4 | 0.19284091 | 0.199741 |
| LRRRC40 | 2.54785359 | 2.231626 |
| LRRRC41 | 6.64708564 | 6.846308 |
| LRRRC42 | 3.49604395 | 2.731319 |
| LRRRC43 | 0.01006478 | 0.034301 |
| LRRRC45 | 0.80088794 | 0.652498 |
| LRRRC46 | 1.07407219 | 0.735441 |
| LRRRC47 | 11.0208306 | 10.71583 |
| LRRRC48 | 0.76014658 | 1.433107 |
| LRRRC49 | 0 | 0.008552 |
| LRRRC4B | 0.03553978 | 0 |
| LRRRC4C | 0 | 0.005892 |
| LRRRC50 | 0.02589326 | 0.009805 |
| LRRRC52 | 0 | 0 |
| LRRRC55 | 0.00553735 | 0 |
| LRRRC56 | 0.21980339 | 0.25831 |
| LRRRC57 | 7.34798316 | 5.36055 |
| LRRRC58 | 2.37263594 | 2.549237 |
| LRRRC59 | 16.2819925 | 15.39694 |
| LRRRC6 | 0.05316139 | 0.045294 |
| LRRRC61 | 1.01752748 | 1.39928 |
| LRRRC63 | 0.01107179 | 0.012578 |
| LRRRC66 | 0 | 0 |
| LRRRC67 | 0 | 0 |
| LRRRC68 | 3.22988836 | 3.845608 |
| LRRRC69 | 0.01589216 | 0.036107 |
| LRRRC7 | 0.01346699 | 0.011474 |
| LRRRC70 | 0.01869749 | 0 |
| LRRRC8A | 4.96609224 | 5.400853 |
| LRRRC8B | 0.40428313 | 0.331861 |
| LRRRC8C | 0.03792553 | 0.049712 |
| LRRRC8D | 1.19285301 | 1.378667 |
| LRRRC8E | 0.00583713 | 0 |
| LRRRC9 | 0 | 0 |
| LRRCC1 | 0.02750567 | 0.043746 |
| LRRFIP1 | 43.0704162 | 44.60828 |

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| LRRFIP2 | 13.478483 | 10.71511 |
| LRRIQ1 | 0 | 0 |
| LRRIQ3 | 0.00733868 | 0.016674 |
| LRRIQ4 | 0 | 0 |
| LRRK1 | 12.8863154 | 17.62509 |
| LRRK2 | 1.26493861 | 1.012366 |
| LRRN1 | 0.12099327 | 0.068725 |
| LRRN2 | 0.3731933 | 0.373654 |
| LRRN3 | 0 | 0 |
| LRRN4 | 0 | 0.008879 |
| LRRN4CL | 0.00870975 | 0.009894 |
| LRRTM1 | 0 | 0 |
| LRRTM2 | 0 | 0 |
| LRRTM3 | 0 | 0 |
| LRRTM4 | 0 | 0 |
| LRSAM1 | 16.0715548 | 13.49192 |
| LRTM1 | 0 | 0 |
| LRTM2 | 0 | 0 |
| LRTOMT | 0.95247662 | 1.095442 |
| LRWD1 | 22.30713 | 22.8419 |
| LSAMP | 0 | 0 |
| LSDP5 | 33.1480443 | 33.04009 |
| LSG1 | 11.1071667 | 11.73527 |
| LSM1 | 18.2858742 | 17.2201 |
| LSM10 | 44.2521378 | 40.09888 |
| LSM11 | 0.75530279 | 0.438344 |
| LSM12 | 7.27083708 | 6.961682 |
| LSM12P | 0 | 0 |
| LSM14A | 38.5222859 | 42.75511 |
| LSM14B | 35.817632 | 30.50554 |
| LSM2 | 5.02353479 | 4.398423 |
| LSM3 | 19.332773 | 16.66403 |
| LSM4 | 18.4246367 | 22.65756 |
| LSM5 | 1.55310229 | 1.27109 |
| LSM6 | 2.03040045 | 2.09412 |
| LSM7 | 10.5126655 | 9.921507 |
| LSM8 | 14.124132 | 11.91514 |
| LSMD1 | 1.72580294 | 1.96054 |
| LSP1 | 340.039709 | 380.8353 |
| LSR | 0.27689198 | 0.366979 |
| LSS | 5.54969919 | 4.640707 |
| LST1 | 84.2761188 | 80.33566 |
| LST-3TM12 | 0 | 0 |
| LTA | 0 | 0 |
| LTA4H | 3.94990441 | 3.478414 |
| LTB | 14.604844 | 11.88912 |
| LTB4R | 8.69621709 | 7.796694 |

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| LTB4R2 | 0.52600899 | 0.554872 |
| LTBP1 | 1.07190573 | 0.960547 |
| LTBP2 | 1.71565128 | 1.689326 |
| LTBP3 | 0.27983184 | 0.285565 |
| LTBP4 | 0.22005947 | 0.144732 |
| LTBR | 0.0399152 | 0.05668 |
| LTC4S | 177.249529 | 266.8185 |
| LTF | 0.30277901 | 0.354078 |
| LTK | 0.01344761 | 0.015277 |
| LTV1 | 2.80492287 | 2.106735 |
| LUC7L | 23.2268306 | 21.53331 |
| LUC7L2 | 45.1725333 | 43.1132 |
| LUM | 0 | 0 |
| LUZP1 | 4.60788448 | 5.335945 |
| LUZP2 | 0.00399949 | 0.004543 |
| LUZP4 | 0 | 0.013822 |
| LUZP6 | 23.791537 | 17.60635 |
| LUZPP1 | 0 | 0 |
| LVRN | 0.00909991 | 0.015506 |
| LXN | 0.37679805 | 0.535061 |
| LY6D | 0 | 0 |
| LY6E | 7.38389599 | 7.636736 |
| LY6G5B | 44.6856194 | 42.55499 |
| LY6G5C | 1.31958144 | 1.132627 |
| LY6G6C | 0.59731054 | 1.139971 |
| LY6G6D | 0 | 0 |
| LY6G6E | 0 | 0 |
| LY6G6F | 0 | 0 |
| LY6H | 0.03634457 | 0 |
| LY6K | 0 | 0 |
| LY75 | 4.97784651 | 5.223898 |
| LY86 | 0.07175881 | 0.027173 |
| LY9 | 0.68710232 | 0.312224 |
| LY96 | 0 | 0.039875 |
| LYAR | 3.06537536 | 2.29178 |
| LYG1 | 0.44599187 | 0.482527 |
| LYG2 | 0.02416705 | 0 |
| LYL1 | 95.3759812 | 148.8411 |
| LYN | 68.692721 | 60.50843 |
| LYNX1 | 0.0035861 | 0.012222 |
| LYPD1 | 0.37120005 | 0.262561 |
| LYPD2 | 0 | 0 |
| LYPD3 | 0.09859475 | 0.056003 |
| LYPD4 | 0 | 0 |
| LYPD5 | 0 | 0.009123 |
| LYPD6 | 0.00603309 | 0 |
| LYPD6B | 0 | 0 |

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|----------|------------|----------|
| LYPLA1 | 19.154779 | 18.82785 |
| LYPLA2 | 31.3696902 | 31.636 |
| LYPLA2P1 | 0 | 0 |
| LYPLAL1 | 2.44480593 | 1.843143 |
| LYRM1 | 11.1175934 | 11.50299 |
| LYRM2 | 1.70401375 | 1.391625 |
| LYRM4 | 0.14187133 | 0.128934 |
| LYRM5 | 2.53785933 | 2.293812 |
| LYRM7 | 0.44669945 | 0.315239 |
| LYSMD1 | 1.42516199 | 1.485677 |
| LYSMD2 | 19.971261 | 25.71949 |
| LYSMD3 | 8.93613574 | 8.352221 |
| LYSMD4 | 2.52158215 | 1.50679 |
| LYST | 18.131579 | 13.81572 |
| LYVE1 | 0 | 0 |
| LYZ | 20.5676556 | 13.0927 |
| LYZL1 | 0 | 0 |
| LYZL2 | 0 | 0 |
| LYZL4 | 0 | 0.027391 |
| LYZL6 | 0.02411162 | 0.027391 |
| LZIC | 6.24633144 | 5.007894 |
| LZTFL1 | 0.21656462 | 0.217904 |
| LZTR1 | 6.08589534 | 5.480014 |
| LZTS1 | 0.0038515 | 0.004375 |
| LZTS2 | 1.83128794 | 1.566807 |
| M6PR | 71.5580946 | 60.1605 |
| M6PRBP1 | 15.9006416 | 17.52928 |
| MAB21L1 | 0 | 0 |
| MAB21L2 | 0 | 0 |
| MACC1 | 0.02295592 | 0.005216 |
| MACF1 | 7.85974932 | 7.332496 |
| MACROD1 | 0.21744575 | 0.247022 |
| MACROD2 | 0.02470178 | 0.018708 |
| MACSL1 | 0 | 0 |
| MAD1L1 | 3.95472807 | 4.082626 |
| MAD2L1 | 0.38015202 | 0.265759 |
| MAD2L1BP | 9.57104023 | 8.938599 |
| MAD2L1P | 0 | 0 |
| MAD2L2 | 1.75738836 | 1.474834 |
| MADCAM1 | 0.0683973 | 0.04662 |
| MADD | 50.1401023 | 49.20437 |
| MAEA | 60.5786946 | 51.93838 |
| MAEL | 0 | 0.013798 |
| MAF | 0.04891034 | 0.065981 |
| MAF1 | 52.5100237 | 52.76254 |
| MAFA | 0.01979786 | 0.022491 |
| MAFB | 0.01876145 | 0 |

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|----------|------------|----------|
| MAFF | 1.00631243 | 0.908927 |
| MAFG | 22.9634651 | 24.07736 |
| MAFK | 16.8767507 | 19.30059 |
| MAG | 0.00867024 | 0 |
| MAGEA1 | 0 | 0 |
| MAGEA10 | 0 | 0 |
| MAGEA11 | 0 | 0 |
| MAGEA12 | 0 | 0 |
| MAGEA13P | 0 | 0 |
| MAGEA2 | 0 | 0 |
| MAGEA2B | 0 | 0 |
| MAGEA3 | 0 | 0 |
| MAGEA4 | 0 | 0 |
| MAGEA5 | 0 | 0 |
| MAGEA6 | 0 | 0 |
| MAGEA7 | 0 | 0 |
| MAGEA8 | 0 | 0 |
| MAGEA9 | 0 | 0 |
| MAGEA9B | 0 | 0 |
| MAGEB1 | 0 | 0.012137 |
| MAGEB10 | 0 | 0.030485 |
| MAGEB16 | 0 | 0 |
| MAGEB17 | 0.0312412 | 0.059151 |
| MAGEB18 | 0 | 0 |
| MAGEB2 | 0 | 0 |
| MAGEB3 | 0 | 0 |
| MAGEB4 | 0 | 0 |
| MAGEB5 | 0 | 0 |
| MAGEB6 | 0 | 0.012255 |
| MAGEB6B | 0 | 0 |
| MAGEC1 | 0 | 0.005582 |
| MAGEC2 | 0.01055489 | 0 |
| MAGEC3 | 0.01562641 | 0 |
| MAGED1 | 1.6347531 | 1.479253 |
| MAGED2 | 30.9271688 | 33.29724 |
| MAGED4 | 0 | 0.009573 |
| MAGED4B | 0 | 0 |
| MAGEE1 | 0.10431531 | 0.026334 |
| MAGEE2 | 0 | 0 |
| MAGEF1 | 2.18753443 | 2.385671 |
| MAGEH1 | 2.51671198 | 2.793676 |
| MAGEL2 | 0.00847796 | 0.009631 |
| MAGI1 | 0.01605162 | 0.00521 |
| MAGI2 | 0.01528004 | 0.017358 |
| MAGI3 | 0.23293539 | 0.373773 |
| MAGIX | 0.48160587 | 0.636936 |
| Magmas | 13.5780024 | 14.81718 |

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|-----------|------------|----------|
| MAGOH | 25.6255869 | 26.05967 |
| MAGOHB | 0.19566031 | 0.435285 |
| MAGOHP | 0 | 0 |
| MAGT1 | 13.962869 | 13.641 |
| MAK | 0.37329569 | 0.35547 |
| MAK10 | 6.6470749 | 6.094883 |
| MAK16 | 0.34120571 | 0.367566 |
| MAL | 0.0398207 | 0 |
| MAL2 | 0.0447665 | 0.067807 |
| MALAT1 | 0 | 0 |
| MALL | 0.01373756 | 0 |
| MALT1 | 6.9945076 | 5.69937 |
| MAMDC2 | 0.00581131 | 0 |
| MAMDC4 | 0.03446776 | 0.09789 |
| MAML1 | 37.0064929 | 38.52168 |
| MAML2 | 0.01936748 | 0.008801 |
| MAML3 | 4.87208488 | 4.60444 |
| MAMLD1 | 0.05022337 | 0.025934 |
| MAN1A1 | 7.50831809 | 6.41456 |
| MAN1A2 | 5.32267102 | 5.399418 |
| MAN1B1 | 13.1648905 | 13.74859 |
| MAN1C1 | 0.8407505 | 1.358041 |
| MAN2A1 | 5.35063512 | 4.946565 |
| MAN2A2 | 21.1494237 | 27.70657 |
| MAN2B1 | 48.2656558 | 55.81589 |
| MAN2B2 | 21.0748956 | 18.96957 |
| MAN2C1 | 27.467327 | 27.15151 |
| MANBA | 89.7085021 | 90.25989 |
| MANBAL | 12.0396002 | 11.15244 |
| MANEA | 0.37233315 | 0.428198 |
| MANEAL | 0 | 0 |
| MANSC1 | 0.37528889 | 0.176773 |
| MAOA | 0 | 0 |
| MAOB | 0.00810225 | 0 |
| MAP1A | 0.14323826 | 0.125528 |
| MAP1B | 0.00351036 | 0 |
| MAP1D | 0.01370621 | 0.031141 |
| MAP1LC3A | 9.54673814 | 9.502907 |
| MAP1LC3B | 50.1373277 | 46.38179 |
| MAP1LC3B2 | 7.98558243 | 7.291848 |
| MAP1LC3C | 0 | 0 |
| MAP1LC3P | 0 | 0 |
| MAP1S | 10.2751999 | 11.49052 |
| MAP2 | 0.00631455 | 0 |
| MAP2K1 | 7.51253125 | 6.603965 |
| MAP2K1P1 | 0 | 0 |
| MAP2K2 | 66.4347107 | 64.39613 |

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|-----------|------------|----------|
| MAP2K3 | 69.7176845 | 89.92954 |
| MAP2K4 | 9.7796156 | 10.35681 |
| MAP2K5 | 1.50307992 | 1.414516 |
| MAP2K6 | 0.12374459 | 0.063898 |
| MAP2K7 | 15.6692339 | 15.49132 |
| MAP3K1 | 9.24476413 | 9.096818 |
| MAP3K10 | 2.74748941 | 2.307874 |
| MAP3K11 | 34.9068747 | 35.93128 |
| MAP3K12 | 0.26250413 | 0.227207 |
| MAP3K13 | 0.09457557 | 0.087294 |
| MAP3K14 | 3.14885749 | 2.887387 |
| MAP3K15 | 0.04028699 | 0.035596 |
| MAP3K2 | 36.4634813 | 46.76473 |
| MAP3K3 | 40.3472006 | 35.49111 |
| MAP3K4 | 2.12016922 | 2.730847 |
| MAP3K5 | 21.1750783 | 18.34947 |
| MAP3K6 | 0.64611114 | 0.629136 |
| MAP3K7 | 13.8038006 | 12.60891 |
| MAP3K7IP1 | 3.62036382 | 3.172724 |
| MAP3K7IP2 | 21.7389305 | 25.48881 |
| MAP3K7IP3 | 9.99996587 | 10.10727 |
| MAP3K8 | 14.7231646 | 15.8694 |
| MAP3K9 | 0.881998 | 0.797307 |
| MAP4 | 0.98598671 | 0.994323 |
| MAP4K1 | 4.89506626 | 4.400567 |
| MAP4K2 | 13.5401708 | 14.79179 |
| MAP4K3 | 0.38850599 | 0.464578 |
| MAP4K4 | 0.15734579 | 0.156404 |
| MAP4K5 | 42.8624508 | 47.26029 |
| MAP6 | 0.00375721 | 0.008536 |
| MAP6D1 | 0.89490417 | 0.681474 |
| MAP7 | 0.06323408 | 0.071835 |
| MAP7D1 | 68.6422658 | 94.84343 |
| MAP7D2 | 0.59528117 | 0.432799 |
| MAP7D3 | 0.69459303 | 0.528676 |
| MAP9 | 0.03727387 | 0.032572 |
| MAPK1 | 54.4113852 | 54.83245 |
| MAPK10 | 0.32142414 | 0.293702 |
| MAPK11 | 0.00880458 | 0.090019 |
| MAPK12 | 0.26371567 | 0.354055 |
| MAPK13 | 21.7714629 | 33.1077 |
| MAPK14 | 16.5860328 | 13.20465 |
| MAPK15 | 0 | 0.012651 |
| MAPK1IP1L | 10.4817889 | 10.98811 |
| MAPK3 | 46.5340827 | 46.37018 |
| MAPK4 | 0.00443947 | 0.010087 |
| MAPK6 | 4.24487747 | 3.96295 |

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|----------|------------|----------|
| MAPK6PS1 | 0 | 0 |
| MAPK6PS2 | 0 | 0 |
| MAPK6PS3 | 0 | 0 |
| MAPK6PS4 | 0 | 0 |
| MAPK6PS5 | 0 | 0 |
| MAPK6PS6 | 0 | 0 |
| MAPK7 | 5.25633274 | 4.697884 |
| MAPK8 | 17.5517034 | 16.39394 |
| MAPK8IP1 | 0.21370009 | 0.344572 |
| MAPK8IP2 | 0.04871203 | 0.013834 |
| MAPK8IP3 | 51.3483145 | 51.90255 |
| MAPK9 | 8.2310705 | 9.342424 |
| MAPKAP1 | 7.25894854 | 6.215432 |
| MAPKAPK2 | 61.7403073 | 69.02657 |
| MAPKAPK3 | 37.1391446 | 30.38186 |
| MAPKAPK5 | 5.60606917 | 4.720932 |
| MAPKBP1 | 1.15421817 | 0.978466 |
| MAPKSP1 | 12.0895653 | 12.50062 |
| MAPRE1 | 61.9137081 | 61.87545 |
| MAPRE1P | 0 | 0 |
| MAPRE2 | 11.4252134 | 9.365325 |
| MAPRE3 | 1.58533244 | 1.456098 |
| MAPT | 0.02468486 | 0.028042 |
| MARCH1 | 10.0898097 | 2.882225 |
| MARCH10 | 0.00632912 | 0.00719 |
| MARCH11 | 0.0412801 | 0.015632 |
| MARCH2 | 11.5111461 | 10.83716 |
| MARCH3 | 19.3579449 | 30.00076 |
| MARCH4 | 0.00472479 | 0 |
| MARCH5 | 7.87244944 | 8.07324 |
| MARCH6 | 62.1412297 | 56.14114 |
| MARCH7 | 31.8290045 | 29.27785 |
| MARCH8 | 17.3478094 | 15.51229 |
| MARCH9 | 3.21101724 | 3.919409 |
| MARCKS | 0.11759682 | 0.077929 |
| MARCKSL1 | 437.751199 | 602.1334 |
| MARCO | 0 | 0 |
| MARK1 | 0 | 0.004527 |
| MARK2 | 60.9209131 | 65.84462 |
| MARK3 | 37.7408262 | 34.84034 |
| MARK4 | 4.30170489 | 3.876412 |
| MARS | 36.8827183 | 33.52461 |
| MARS2 | 0.37495636 | 0.291859 |
| MARVELD1 | 0 | 0 |
| MARVELD2 | 0.00660343 | 0.007502 |
| MARVELD3 | 0.00621316 | 0 |
| MAS1 | 0 | 0 |

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|----------------|------------|----------|
| MAS1L | 0 | 0 |
| MAS1LP | 0 | 0 |
| MASP1 | 0.00567868 | 0.003226 |
| MASP2 | 3.00823966 | 2.958079 |
| MAST1 | 0.00870074 | 0.014826 |
| MAST2 | 3.02298676 | 3.454974 |
| MAST3 | 51.230736 | 62.10615 |
| MAST4 | 0.04636505 | 0.049899 |
| MASTL | 2.63750394 | 2.206386 |
| MAT1A | 0 | 0.007017 |
| MAT2A | 22.6065194 | 24.57989 |
| MAT2B | 54.1272715 | 50.19868 |
| MATK | 0.06593597 | 0.084267 |
| MATN1 | 0.10979285 | 0.218271 |
| MATN2 | 0.11254435 | 0.087172 |
| MATN3 | 0.01627978 | 0.018494 |
| MATN4 | 0 | 0 |
| MATR3 | 44.0940186 | 43.58731 |
| MAVS | 10.0353047 | 8.357757 |
| MAX | 146.688186 | 134.7187 |
| MAZ | 79.2970471 | 102.4593 |
| MB | 0.01513703 | 0 |
| MBD1 | 21.5864364 | 21.96551 |
| MBD2 | 26.7461768 | 30.59833 |
| MBD3 | 9.43223132 | 9.623114 |
| MBD3L1 | 0 | 0 |
| MBD3L2 | 0 | 0 |
| MBD3L3 | 0 | 0 |
| MBD3L4 | 0 | 0 |
| MBD3L5 | 0 | 0 |
| MBD4 | 38.6627746 | 48.14735 |
| MBD5 | 0.41567685 | 0.346291 |
| MBD6 | 56.9001186 | 53.73286 |
| MBIP | 1.12271185 | 1.130485 |
| MBL1P1 | 0 | 0 |
| MBL2 | 0 | 0 |
| MBLAC1 | 0.40594847 | 0.333946 |
| MBLAC2 | 0.23088564 | 0.17858 |
| MBNL1 | 58.9856748 | 50.60436 |
| MBNL2 | 14.1152201 | 14.3595 |
| MBNL3 (NC_000) | 0 | 0 |
| MBNL3 (NC_000) | 0.82256322 | 0.742316 |
| MBOAT1 | 51.4494664 | 44.29138 |
| MBOAT2 | 14.1329577 | 14.54204 |
| MBOAT4 | 0.02528603 | 0.071813 |
| MBOAT7 | 175.535325 | 149.9974 |
| MBP | 67.3450492 | 57.13041 |

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|----------|------------|----------|
| MBTD1 | 8.64530981 | 7.646608 |
| MBTPS1 | 25.6057286 | 26.77528 |
| MBTPS2 | 0.29606523 | 0.245578 |
| MC1R | 0.35279678 | 0.385368 |
| MC2R | 0.01151442 | 0 |
| MC3R | 0 | 0 |
| MC4R | 0 | 0 |
| MC5R | 0.02149829 | 0 |
| MCAM | 0.07572148 | 0.114694 |
| MCART1 | 2.35112319 | 1.531097 |
| MCART2 | 0.49680107 | 0.201562 |
| MCART3P | 0 | 0 |
| MCART4P | 0 | 0 |
| MCART5P | 0 | 0 |
| MCART6 | 0.1148556 | 0.09594 |
| MCAT | 0.58205142 | 0.846825 |
| MCC | 0.15202862 | 0.134041 |
| MCCC1 | 2.71214328 | 1.686562 |
| MCCC2 | 1.2818928 | 1.1637 |
| MCCD1 | 0.11861964 | 0.067377 |
| MCEE | 3.02088089 | 2.196332 |
| MCF2 | 0.06564104 | 0.074569 |
| MCF2L | 0.02592063 | 0.008413 |
| MCF2L2 | 0.10574349 | 0.045047 |
| MCFD2 | 16.0799937 | 13.77853 |
| MCFD2L | 0 | 0 |
| MCHR1 | 0 | 0.009858 |
| MCHR2 | 0 | 0 |
| MCL1 | 232.929129 | 255.1109 |
| MCM10 | 0.00464854 | 0 |
| MCM2 | 0.9058949 | 0.681438 |
| MCM3 | 4.76466034 | 3.930947 |
| MCM3AP | 25.0735584 | 24.38133 |
| MCM3APAS | 0 | 0 |
| MCM4 | 0.89862015 | 1.494087 |
| MCM5 | 6.30925092 | 7.298749 |
| MCM6 | 4.1534978 | 3.362127 |
| MCM7 | 24.5753796 | 24.35712 |
| MCM8 | 2.12496012 | 2.10189 |
| MCM9 | 3.2569653 | 2.925103 |
| MCOLN1 | 57.2840319 | 50.36719 |
| MCOLN2 | 0.1243285 | 0.117699 |
| MCOLN3 | 0 | 0.008543 |
| MCPH1 | 3.78518782 | 3.565519 |
| MCRS1 | 24.4406131 | 21.14499 |
| MCTP1 | 2.04770128 | 1.863182 |
| MCTP2 | 20.2838233 | 13.93072 |

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|---------|------------|----------|
| MCTS1 | 1.91676712 | 1.80817 |
| MDC1 | 5.14789591 | 5.267821 |
| MDFI | 0 | 0 |
| MDFIC | 1.61557785 | 1.63831 |
| MDGA1 | 0.323394 | 0.375426 |
| MDGA2 | 0.00381377 | 0.004333 |
| MDH1 | 16.4985838 | 16.42572 |
| MDH1B | 0 | 0 |
| MDH2 | 23.6333735 | 22.09281 |
| MDK | 0.92707366 | 1.39098 |
| MDM1 | 4.19475506 | 3.247864 |
| MDM2 | 5.05128344 | 4.456369 |
| MDM4 | 10.9478667 | 10.57793 |
| MDN1 | 1.44156436 | 1.240928 |
| MDP-1 | 8.9888677 | 8.148214 |
| MDS1 | 0 | 0.022857 |
| MDS2 | 0 | 0 |
| ME1 | 0 | 0.007109 |
| ME2 | 13.9910925 | 15.16445 |
| ME3 | 0.018063 | 0 |
| MEA1 | 21.3160037 | 20.08771 |
| MECP2 | 21.2265303 | 20.89277 |
| MECR | 0.01727636 | 0.058879 |
| MED1 | 7.62516605 | 7.258165 |
| MED10 | 17.568832 | 14.54482 |
| MED11 | 18.8372881 | 16.02817 |
| MED12 | 15.5585639 | 13.11299 |
| MED12L | 0.19128843 | 0.186263 |
| MED13 | 15.9362566 | 16.09306 |
| MED13L | 92.7979819 | 96.93361 |
| MED13P1 | 0 | 0 |
| MED14 | 24.8992358 | 34.91715 |
| MED14P1 | 0 | 0 |
| MED15 | 40.2253517 | 39.61743 |
| MED15P | 0 | 0 |
| MED16 | 8.64310801 | 8.135967 |
| MED17 | 9.27711915 | 8.674318 |
| MED18 | 11.7894847 | 11.54 |
| MED19 | 5.66226735 | 6.432425 |
| MED20 | 2.51998519 | 2.245856 |
| MED21 | 14.7884958 | 12.07199 |
| MED22 | 14.5980665 | 15.92546 |
| MED23 | 13.6711793 | 12.1889 |
| MED24 | 5.11989595 | 4.065007 |
| MED25 | 21.8904967 | 20.98777 |
| MED26 | 6.2270374 | 6.398869 |
| MED27 | 4.66385593 | 3.537896 |

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|---------|------------|----------|
| MED28 | 23.6842721 | 22.44939 |
| MED29 | 14.0994089 | 14.26277 |
| MED30 | 16.3746662 | 15.16164 |
| MED31 | 2.41232662 | 2.596208 |
| MED4 | 16.1589339 | 15.0729 |
| MED6 | 11.9049679 | 11.00066 |
| MED7 | 3.09321818 | 3.076726 |
| MED8 | 11.8914711 | 10.81241 |
| MED9 | 3.42536895 | 3.289308 |
| MEF2A | 11.8288195 | 10.50175 |
| MEF2AP | 0 | 0 |
| MEF2B | 0.49266799 | 0.395067 |
| MEF2C | 0.08003786 | 0.08393 |
| MEF2D | 45.2577945 | 54.36566 |
| MEFV | 0.09013431 | 0.05461 |
| MEG3 | 0 | 0 |
| MEG8 | 0 | 0 |
| MEGF10 | 0 | 0 |
| MEGF11 | 0.05688287 | 0.036349 |
| MEGF6 | 14.5670864 | 14.99121 |
| MEGF8 | 0.4218104 | 0.385525 |
| MEGF9 | 40.5614929 | 24.06718 |
| MEI1 | 2.96013147 | 2.361084 |
| MEIG1 | 0.03364053 | 0.038216 |
| MEIS1 | 0.00660966 | 0.015017 |
| MEIS2 | 0.27195615 | 0.283623 |
| MEIS3 | 0.02920185 | 0.011058 |
| MEIS3P1 | 0 | 0 |
| MEIS3P2 | 0 | 0 |
| MELK | 0.04310236 | 0.019586 |
| MEMO1 | 11.5674092 | 12.15323 |
| MEMO1P | 0 | 0 |
| MEN1 | 5.49565014 | 4.625038 |
| MEOX1 | 0 | 0.010212 |
| MEOX2 | 0.00886771 | 0 |
| MEP1A | 0.00717833 | 0 |
| MEP1B | 0.018188 | 0.010331 |
| MEPCE | 24.9977178 | 20.87665 |
| MEPE | 0.01071082 | 0 |
| MERTK | 0.03479095 | 0.039523 |
| MESDC1 | 7.44259503 | 8.298334 |
| MESDC2 | 3.13670386 | 2.780873 |
| MESP1 | 0 | 0 |
| MESP2 | 0 | 0 |
| MEST | 0.26216123 | 0.314838 |
| MESTIT1 | 0 | 0 |
| MESTP1 | 0 | 0 |

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|--------------|------------|----------|
| MET | 0.00314939 | 0.010733 |
| METAP1 | 4.38723512 | 4.33726 |
| METAP2 | 2.30283146 | 2.227733 |
| METRN | 0.51985708 | 0.524947 |
| METRNL | 116.325443 | 115.6448 |
| METT10D | 1.23785814 | 0.97067 |
| METT11D1 | 26.993888 | 31.14693 |
| METT5D1 | 0.6237134 | 0.427292 |
| METT5D2 | 0 | 0 |
| METTL1 | 0.01608671 | 0 |
| METTL10 | 1.23102946 | 1.231764 |
| METTL11A | 24.3826692 | 33.08636 |
| METTL11B | 0 | 0 |
| METTL12 | 0 | 0 |
| METTL13 | 3.78295506 | 3.287971 |
| METTL14 | 8.39029717 | 6.906402 |
| METTL2A | 0.49245515 | 0.417207 |
| METTL2B | 0.99248813 | 1.083697 |
| METTL3 | 18.4334615 | 17.66643 |
| METTL4 | 1.70537524 | 1.131195 |
| METTL5 | 3.71693817 | 3.12872 |
| METTL6 | 1.1358222 | 0.936671 |
| METTL7A | 22.2533591 | 11.47049 |
| METTL7B | 0 | 0 |
| METTL8 | 0.17058044 | 0.123316 |
| METTL9 | 6.31747034 | 5.554503 |
| MEX3A | 0.00686654 | 0.011701 |
| MEX3B | 2.00476964 | 2.741375 |
| MEX3C | 5.51629947 | 4.510439 |
| MEX3D | 0.65658051 | 0.846455 |
| MFAP1 | 16.0620076 | 16.66053 |
| MFAP2 | 0 | 0 |
| MFAP3 | 8.09531459 | 7.876551 |
| MFAP3L | 0.02001459 | 0.060632 |
| MFAP4 | 0.4870733 | 1.132995 |
| MFAP5 | 0 | 0 |
| MFF | 13.027132 | 12.39983 |
| MFGE8 | 0.13742046 | 0.192138 |
| MFHAS1 | 0.38009637 | 0.654511 |
| MFI2 | 0.6823898 | 0.599687 |
| MFN1 | 18.874402 | 16.3035 |
| MFN2 | 24.271063 | 25.7185 |
| MFNG | 209.602083 | 246.8128 |
| MFRP | 0.00536771 | 0 |
| MFRP-C1QTNF5 | 0 | 0 |
| MFSD1 | 89.1995531 | 80.3981 |
| MFSD10 | 31.2328479 | 32.99326 |

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| MFSD11 | 6.35920541 | 7.356538 |
| MFSD2 | 0.94571003 | 0.759635 |
| MFSD3 | 0.97420275 | 0.891975 |
| MFSD4 | 0.18515458 | 0.12854 |
| MFSD5 | 22.0407589 | 26.64004 |
| MFSD6 | 0.93796557 | 1.100398 |
| MFSD6L | 4.91190068 | 5.886216 |
| MFSD7 | 0.28168986 | 0.204803 |
| MFSD8 | 4.11717152 | 3.768014 |
| MFSD9 | 7.94083084 | 6.89367 |
| MGA | 3.68620332 | 3.119624 |
| MGAM | 5.24984744 | 6.118625 |
| MGAT1 | 12.4347374 | 9.74692 |
| MGAT2 | 11.7341666 | 11.85886 |
| MGAT3 | 47.2454404 | 51.8145 |
| MGAT4A | 19.5328385 | 24.40373 |
| MGAT4B | 46.3056029 | 46.4954 |
| MGAT4C | 0 | 0 |
| MGAT5 | 2.8224835 | 2.841351 |
| MGAT5B | 0.00946661 | 0.010754 |
| MGC102966 | 0 | 0 |
| MGC10997 | 0 | 0 |
| MGC12916 | 0 | 0 |
| MGC12982 | 0 | 0 |
| MGC13005 | 0 | 0 |
| MGC13053 | 0 | 0 |
| MGC14436 | 0 | 0 |
| MGC15705 | 0 | 0 |
| MGC15885 | 0 | 0 |
| MGC16025 | 0 | 0 |
| MGC16121 | 0 | 0 |
| MGC16142 | 0 | 0 |
| MGC16275 | 0 | 0 |
| MGC16384 | 0 | 0 |
| MGC16385 | 1.43389383 | 1.001746 |
| MGC16703 | 0 | 0 |
| MGC21881 | 0 | 0 |
| MGC23270 | 0 | 0 |
| MGC23284 | 0 | 0 |
| MGC24975 | 0.27940639 | 0.304185 |
| MGC26597 | 0 | 0 |
| MGC27345 | 0 | 0 |
| MGC27382 | 0 | 0 |
| MGC2752 | 0 | 0 |
| MGC2889 | 0 | 0 |
| MGC29506 | 0.05084723 | 0.057763 |
| MGC33407 | 0 | 0.033594 |

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| MGC34034 | 0 | 0 |
| MGC34796 | 0 | 0 |
| MGC34800 | 0 | 0 |
| MGC3771 | 0 | 0 |
| MGC39372 | 0.26147083 | 0.244617 |
| MGC39545 | 0 | 0 |
| MGC42105 | 0.01818014 | 0 |
| MGC4294 | 0 | 0 |
| MGC44328 | 0 | 0 |
| MGC4473 | 0 | 0 |
| MGC45800 | 0 | 0 |
| MGC45922 | 0 | 0 |
| MGC51338 | 0 | 0 |
| MGC52282 | 0 | 0 |
| MGC57346 | 0 | 0 |
| MGC72080 | 0 | 0 |
| MGC87042 | 0 | 0 |
| MGEA5 | 71.8062341 | 66.10877 |
| MGLL | 4.24588346 | 3.971611 |
| MGMT | 0.73131586 | 0.774142 |
| MGP | 0.22265857 | 0.578157 |
| MGRN1 | 23.0391893 | 21.00694 |
| MGST1 | 0.03688655 | 0.020952 |
| MGST2 | 5.03977971 | 4.144857 |
| MGST3 | 4.72514979 | 3.170271 |
| MIA | 0.47940494 | 0.972521 |
| MIA2 | 0 | 0.010471 |
| MIA3 | 23.4273385 | 23.58225 |
| MIAT | 0 | 0 |
| MIB1 | 3.41085623 | 3.143453 |
| MIB2 | 14.4857012 | 16.83149 |
| MICA | 5.42191685 | 6.526847 |
| MICAL1 | 156.031606 | 142.8323 |
| MICAL2 | 3.25661168 | 3.436618 |
| MICAL3 | 0.50656591 | 0.583549 |
| MICALCL | 0.32463553 | 0.455104 |
| MICALL1 | 7.46902443 | 11.76643 |
| MICALL2 | 0.4952724 | 0.547223 |
| MICB | 8.32376171 | 8.878758 |
| MICC | 0 | 0 |
| MICD | 0 | 0 |
| MICE | 0 | 0 |
| MICG | 0 | 0 |
| MID1 | 0.29496995 | 0.338694 |
| MID1IP1 | 26.2564333 | 31.06975 |
| MID2 | 0.00572507 | 0 |
| MIDN | 73.59143 | 98.31119 |

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| MIER1 | 14.9162226 | 15.34159 |
| MIER2 | 4.44561668 | 4.254697 |
| MIER3 | 2.42957583 | 2.424791 |
| MIF | 28.6334275 | 27.63179 |
| MIF4GD | 6.17954132 | 5.362309 |
| MIIP | 3.81315826 | 3.534635 |
| MIMT1 | 0 | 0 |
| MINA | 0.01574342 | 0.017885 |
| MINK1 | 64.6508925 | 61.16942 |
| MINPP1 | 2.00135746 | 2.097393 |
| MIOS | 8.99820931 | 7.844373 |
| MIOX | 0.02926281 | 0 |
| MIP | 0.01049168 | 0 |
| MIPEP | 0.35903314 | 0.348179 |
| MIPOL1 | 0 | 0 |
| MIRHG1 | 0 | 0 |
| MIRHG2 | 0 | 0 |
| MIS12 | 7.38659709 | 6.24335 |
| MITD1 | 21.0022262 | 17.03455 |
| MITF | 0 | 0.004632 |
| MIXL1 | 0.03007916 | 0 |
| MKI67 | 0.04144066 | 0.028246 |
| MKI67IP | 4.06473602 | 6.266749 |
| MKKS | 3.46379822 | 2.867246 |
| MKL1 | 228.188057 | 276.647 |
| MKL2 | 0.09740714 | 0.063627 |
| MKLN1 | 5.54868373 | 5.272005 |
| MKNK1 | 34.1933928 | 37.31675 |
| MKNK2 | 46.1779594 | 49.09542 |
| MKRN1 | 102.698868 | 89.56916 |
| MKRN2 | 9.38427313 | 8.50265 |
| MKRN3 | 0.08521689 | 0.070406 |
| MKRNP1 | 0 | 0 |
| MKRNP2 | 0 | 0 |
| MKRNP3 | 0 | 0 |
| MKRNP4 | 0 | 0 |
| MKRNP5 | 0 | 0 |
| MKRNP6 | 0 | 0 |
| MKS1 | 0.35086076 | 0.219221 |
| MKX | 0 | 0.013127 |
| MLANA | 0.6208267 | 0.59556 |
| MLC1 | 0.02518607 | 0.074391 |
| MLEC | 10.7428215 | 9.657123 |
| MLF1 | 0.12676771 | 0.123437 |
| MLF1IP | 1.87592767 | 0.961816 |
| MLF2 | 179.251905 | 181.5337 |
| MLH1 | 10.8208815 | 8.810236 |

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| MLH3 | 0.25030156 | 0.232922 |
| MLKL | 57.1255839 | 53.86153 |
| MLL | 19.5644199 | 19.64121 |
| MLL2 | 19.8159332 | 18.95532 |
| MLL3 | 20.6188396 | 20.35943 |
| MLL4 | 19.5506531 | 18.90728 |
| MLL5 | 35.0902143 | 36.41409 |
| MLLT1 | 6.65529899 | 7.984678 |
| MLLT10 | 4.49575032 | 3.917886 |
| MLLT11 | 0.45791963 | 0.486999 |
| MLLT3 | 0.26900685 | 0.298651 |
| MLLT4 | 0.22291227 | 0.192828 |
| MLLT6 | 17.9640428 | 22.62079 |
| MLN | 0 | 0 |
| MLNR | 0 | 0.019278 |
| MLPH | 0 | 0.006359 |
| MLX | 25.9164696 | 24.10886 |
| MLXIP (NC_0000 | 5.80360225 | 6.361651 |
| MLXIP (NC_0000 | 12.0192777 | 15.57808 |
| MLXIPL | 0 | 0.014573 |
| MLYCD | 3.83149539 | 3.47123 |
| MMAA | 0.19104289 | 0.213009 |
| MMAB | 0.10159619 | 0.098103 |
| MMACHC | 0.12541425 | 0.067046 |
| MMADHC | 28.2239829 | 28.38954 |
| MMD | 1.59060528 | 4.201604 |
| MMD2 | 0.01740508 | 0.009886 |
| MME | 0.00348563 | 0.011879 |
| MMEL1 | 0.13279156 | 0.142473 |
| MMGT1 | 6.19002342 | 4.354056 |
| MMP1 | 0 | 0 |
| MMP10 | 0 | 0 |
| MMP11 | 0.00929913 | 0 |
| MMP12 | 0 | 0 |
| MMP13 | 0 | 0 |
| MMP14 | 0.06536988 | 0.040506 |
| MMP15 | 0.274779 | 0.403647 |
| MMP16 | 0.00317363 | 0 |
| MMP17 | 1.44942066 | 1.80527 |
| MMP19 | 0.32953039 | 0.344991 |
| MMP2 | 0 | 0.01243 |
| MMP20 | 0 | 0 |
| MMP21 | 0.0219128 | 0.012447 |
| MMP23A | 0 | 0 |
| MMP23B | 0.5595451 | 0.674176 |
| MMP24 | 1.03840776 | 0.826856 |
| MMP25 | 292.64492 | 226.0685 |

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| MMP26 | 0 | 0 |
| MMP27 | 0 | 0 |
| MMP28 | 0.02215525 | 0.00839 |
| MMP3 | 0 | 0 |
| MMP7 | 0 | 0.021345 |
| MMP8 | 0.01376003 | 0.007816 |
| MMP9 | 0.32402051 | 0.214721 |
| MMRN1 | 0.0042313 | 0.009614 |
| MMRN2 | 0 | 0.011428 |
| MMS19 | 8.27095222 | 7.808344 |
| MN1 | 0.03617381 | 0.034772 |
| MNAT1 | 5.62412279 | 3.882201 |
| MND1 | 0 | 0 |
| MNDA | 71.9679295 | 58.81726 |
| MNS1 | 0.01039314 | 0.023614 |
| MNT | 26.8049087 | 32.52262 |
| MNX1 | 0.00966238 | 0.03293 |
| MOAP1 | 19.1028659 | 27.85773 |
| MOBKL1A | 1.05459047 | 1.036692 |
| MOBKL1B | 100.36471 | 85.78151 |
| MOBKL2A | 105.669488 | 120.0852 |
| MOBKL2B | 0.02577818 | 0.018303 |
| MOBKL2C | 6.98026901 | 7.137527 |
| MOBKL3 | 7.35031895 | 7.678512 |
| MOBP | 0.00683306 | 0 |
| MOCOS | 0.10794083 | 0.105105 |
| MOCS1 | 0.01442726 | 0.01639 |
| MOCS1P1 | 0 | 0 |
| MOCS2 | 2.06522579 | 1.664995 |
| MOCS3 | 1.41993692 | 1.642223 |
| MOCS3P | 0 | 0 |
| MOG | 0 | 0 |
| MOGAT1 | 0 | 0 |
| MOGAT2 | 0 | 0 |
| MOGAT3 | 0.01491158 | 0 |
| MOGS | 22.8337273 | 22.63104 |
| MON1A | 1.30111914 | 1.103214 |
| MON1B | 25.0691522 | 22.56537 |
| MON2 | 8.3866336 | 7.805982 |
| MORC1 | 0.00557997 | 0.012678 |
| MORC2 | 2.06158383 | 1.989089 |
| MORC3 | 23.8230964 | 28.35724 |
| MORC4 | 0.03318043 | 0.018847 |
| MORF4 | 0.23757436 | 0.438568 |
| MORF4L1 | 75.1414813 | 73.40092 |
| MORF4L2 | 13.6893602 | 11.15144 |
| MORF4LP1 | 0 | 0 |

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| MORF4LP2 | 0 | 0 |
| MORF4LP3 | 0 | 0 |
| MORF4LP4 | 0 | 0 |
| MORG1 | 3.81128073 | 3.722562 |
| MORN1 | 0.12812511 | 0.218328 |
| MORN2 | 0.11349706 | 0.032234 |
| MORN3 | 0.50838451 | 0.412523 |
| MORN4 | 0.00816835 | 0.009279 |
| MORN5 | 0 | 0.03388 |
| MOS | 0 | 0 |
| MOSC1 | 2.24032728 | 1.820933 |
| MOSC2 | 0.24013703 | 0.227333 |
| MOSPD1 | 4.06596731 | 3.727617 |
| MOSPD2 | 5.45027501 | 5.438363 |
| MOSPD3 | 1.65317113 | 1.587788 |
| MOV10 | 2.48649404 | 2.358293 |
| MOV10L1 | 0.04854489 | 0.07353 |
| MOXD1 | 0 | 0.00786 |
| MOXD2 | 0 | 0 |
| MPDU1 | 6.1350904 | 5.142445 |
| MPDZ | 0.00848024 | 0 |
| MPEG1 | 1.5097977 | 0.714648 |
| MPG | 11.2155252 | 10.80067 |
| MPHOSPH10 | 4.53869408 | 4.367233 |
| MPHOSPH6 | 3.15093516 | 1.800603 |
| MPHOSPH8 | 33.1893366 | 31.51446 |
| MPHOSPH9 | 2.35814429 | 1.885144 |
| MPI | 0.39177635 | 0.431577 |
| MPL | 0.0692192 | 0.104845 |
| MPN2 | 0.01691499 | 0.019216 |
| MPND | 2.02300796 | 1.775138 |
| MPO | 0.00653976 | 0.014859 |
| MPP1 | 168.065983 | 161.3797 |
| MPP2 | 0 | 0 |
| MPP3 | 0.00743996 | 0 |
| MPP4 | 0.01710767 | 0.009717 |
| MPP5 | 5.29459986 | 4.873329 |
| MPP6 | 0.03845511 | 0.010921 |
| MPP7 | 4.90604515 | 5.353164 |
| MPPE1 | 29.3200713 | 34.34655 |
| MPPED1 | 0.02514992 | 0.009524 |
| MPPED2 | 0.00583308 | 0.013253 |
| MPRIP | 6.77854084 | 6.874161 |
| MPST | 13.4958134 | 14.29555 |
| MPV17 | 8.87365011 | 7.732419 |
| MPV17L | 0.04552908 | 0.020689 |
| MPV17L2 | 4.57610144 | 5.110711 |

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| MPZ | 2.87149021 | 3.530842 |
| MPZL1 | 0.5022748 | 0.607405 |
| MPZL2 | 0.55724628 | 0.219129 |
| MPZL3 | 50.4137386 | 22.40292 |
| MR1 | 14.5828899 | 13.20016 |
| MRAP | 0 | 0.019356 |
| MRAP2 | 0 | 0.010788 |
| MRAS | 0.00461487 | 0 |
| MRC1 | 0.01219803 | 0.009238 |
| MRC1L1 | 0.02846206 | 0 |
| MRC2 | 0.02811343 | 0.011976 |
| MRE11A | 4.80762141 | 4.542176 |
| MRE11B | 0 | 0 |
| MREG | 0.04580682 | 0.052037 |
| MRFAP1 | 83.2652448 | 80.81077 |
| MRFAP1L1 | 63.0363723 | 62.75842 |
| MRGPRD | 0.04353071 | 0 |
| MRGPRE | 0 | 0 |
| MRGPRF | 0 | 0.020915 |
| MRGPRG | 0 | 0 |
| MRGPRX1 | 0 | 0 |
| MRGPRX2 | 0 | 0 |
| MRGPRX3 | 0.01282815 | 0 |
| MRGPRX4 | 0 | 0.016541 |
| MRI1 | 3.11581757 | 2.961871 |
| MRM1 | 0.10323403 | 0.143337 |
| MRO | 0.00788351 | 0 |
| MRP63 | 3.40138913 | 3.414726 |
| MRP63P1 | 0 | 0 |
| MRP63P10 | 0 | 0 |
| MRP63P2 | 0 | 0 |
| MRP63P3 | 0 | 0 |
| MRP63P6 | 0 | 0 |
| MRP63P7 | 0 | 0 |
| MRP63P8 | 0 | 0 |
| MRP63P9 | 0 | 0 |
| MRPL1 | 0.34036592 | 0.298784 |
| MRPL10 | 7.26548686 | 7.870452 |
| MRPL11 | 0.34917513 | 0.240834 |
| MRPL11P2 | 0 | 0 |
| MRPL11P3 | 0 | 0 |
| MRPL12 | 1.53484916 | 1.480877 |
| MRPL13 | 5.49310449 | 6.046591 |
| MRPL14 | 2.74007539 | 2.897033 |
| MRPL14P1 | 0 | 0 |
| MRPL15 | 1.851287 | 2.212343 |
| MRPL15P1 | 0 | 0 |

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| MRPL16 | 11.1708188 | 9.881403 |
| MRPL17 | 1.04860061 | 0.777326 |
| MRPL18 | 8.95244389 | 7.627589 |
| MRPL19 | 0.73334807 | 0.631687 |
| MRPL2 | 5.59149548 | 6.444893 |
| MRPL20 | 25.6434459 | 24.86267 |
| MRPL20P1 | 0 | 0 |
| MRPL21 | 5.63443284 | 4.716383 |
| MRPL22 | 1.72947097 | 1.482939 |
| MRPL22P1 | 0 | 0 |
| MRPL23 | 7.82074305 | 6.502415 |
| MRPL24 | 1.13405237 | 0.824513 |
| MRPL27 | 7.14801437 | 5.74194 |
| MRPL28 | 18.2321569 | 14.03984 |
| MRPL2P1 | 0 | 0 |
| MRPL3 | 1.27389484 | 1.185297 |
| MRPL30 | 4.73049486 | 4.462769 |
| MRPL30P1 | 0 | 0 |
| MRPL30P2 | 0 | 0 |
| MRPL32 | 9.09140009 | 6.778567 |
| MRPL32P1 | 0 | 0 |
| MRPL33 | 16.9257973 | 14.29418 |
| MRPL34 | 8.36234754 | 8.685494 |
| MRPL35 | 1.89234329 | 1.673617 |
| MRPL35P1 | 0 | 0 |
| MRPL35P2 | 0 | 0 |
| MRPL35P3 | 0 | 0 |
| MRPL35P4 | 0 | 0 |
| MRPL36 | 4.34888767 | 3.928984 |
| MRPL36P1 | 0 | 0 |
| MRPL37 | 2.43854142 | 1.981031 |
| MRPL38 | 5.15287476 | 4.974169 |
| MRPL39 | 2.5137031 | 2.019322 |
| MRPL3P1 | 0 | 0 |
| MRPL4 | 1.50430821 | 2.384537 |
| MRPL40 | 3.92870231 | 2.985639 |
| MRPL41 | 14.1329211 | 15.46205 |
| MRPL42 | 3.84057221 | 3.041199 |
| MRPL42P1 | 0 | 0 |
| MRPL42P2 | 0 | 0 |
| MRPL42P3 | 0 | 0 |
| MRPL42P4 | 0 | 0 |
| MRPL42P5 | 0 | 0 |
| MRPL43 | 4.68827489 | 4.190513 |
| MRPL44 | 6.37495733 | 6.148913 |
| MRPL45 | 1.07853997 | 0.887242 |
| MRPL45P1 | 0 | 0 |

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| MRPL46 | 2.24971041 | 1.815268 |
| MRPL47 | 7.7377487 | 7.699007 |
| MRPL48 | 1.65199029 | 1.754824 |
| MRPL48P1 | 0 | 0 |
| MRPL49 | 18.3480988 | 18.37404 |
| MRPL49P1 | 0 | 0 |
| MRPL49P2 | 0 | 0 |
| MRPL50 | 5.14822012 | 5.193432 |
| MRPL50P1 | 0 | 0 |
| MRPL50P2 | 0 | 0 |
| MRPL50P3 | 0 | 0 |
| MRPL50P4 | 0 | 0 |
| MRPL51 | 19.8762361 | 15.52356 |
| MRPL51P1 | 0 | 0 |
| MRPL51P2 | 0 | 0 |
| MRPL52 | 4.91291361 | 3.928834 |
| MRPL53 | 6.31442569 | 6.436572 |
| MRPL53P1 | 0 | 0 |
| MRPL54 | 9.68582662 | 7.092689 |
| MRPL55 | 7.8903008 | 6.485361 |
| MRPL9 | 4.41011199 | 4.677192 |
| MRPL9P1 | 0 | 0 |
| MRPS10 | 4.4408643 | 4.710054 |
| MRPS10P1 | 0 | 0 |
| MRPS10P2 | 0 | 0 |
| MRPS10P5 | 0 | 0 |
| MRPS11 | 5.92784661 | 5.387302 |
| MRPS11P1 | 0 | 0 |
| MRPS12 | 2.17558183 | 1.876172 |
| MRPS14 | 2.50903579 | 1.856012 |
| MRPS15 | 2.63633684 | 2.400887 |
| MRPS15P1 | 0 | 0 |
| MRPS15P2 | 0 | 0 |
| MRPS16 | 5.38804039 | 4.642815 |
| MRPS16P | 0 | 0 |
| MRPS16P1 | 0 | 0 |
| MRPS16P3 | 0 | 0 |
| MRPS17 | 1.11226154 | 0.815191 |
| MRPS17P1 | 0 | 0 |
| MRPS17P3 | 0 | 0 |
| MRPS17P5 | 0 | 0 |
| MRPS17P6 | 0 | 0 |
| MRPS17P7 | 0 | 0 |
| MRPS17P9 | 0 | 0 |
| MRPS18A | 6.01007102 | 6.196609 |
| MRPS18AP1 | 0 | 0 |
| MRPS18B | 5.59213496 | 5.309532 |

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| MRPS18BP1 | 0 | 0 |
| MRPS18BP2 | 0 | 0 |
| MRPS18C | 9.47171466 | 8.139261 |
| MRPS18CP2 | 0 | 0 |
| MRPS18CP3 | 0 | 0 |
| MRPS18CP4 | 0 | 0 |
| MRPS18CP5 | 0 | 0 |
| MRPS18CP6 | 0 | 0 |
| MRPS2 | 2.33304337 | 1.88859 |
| MRPS21 | 11.8449415 | 9.716839 |
| MRPS21P1 | 0 | 0 |
| MRPS21P2 | 0 | 0 |
| MRPS21P3 | 0 | 0 |
| MRPS21P4 | 0 | 0 |
| MRPS21P5 | 0 | 0 |
| MRPS21P6 | 0 | 0 |
| MRPS21P7 | 0 | 0 |
| MRPS21P8 | 0 | 0 |
| MRPS21P9 | 0 | 0 |
| MRPS22 | 11.2896479 | 9.953901 |
| MRPS22P1 | 0 | 0 |
| MRPS23 | 15.5536225 | 14.0983 |
| MRPS23P1 | 0 | 0 |
| MRPS24 | 6.01155296 | 4.632888 |
| MRPS24P1 | 0 | 0 |
| MRPS25 | 1.76362281 | 1.69487 |
| MRPS25P1 | 0 | 0 |
| MRPS26 | 2.61045976 | 2.091959 |
| MRPS27 | 1.49694913 | 1.211003 |
| MRPS28 | 1.04085797 | 0.743242 |
| MRPS29P1 | 0 | 0 |
| MRPS29P2 | 0 | 0 |
| MRPS30 | 2.97124438 | 2.78898 |
| MRPS31 | 7.22304126 | 6.814124 |
| MRPS31P1 | 0 | 0 |
| MRPS31P2 | 0 | 0 |
| MRPS33 | 1.31247476 | 0.906289 |
| MRPS33P1 | 0 | 0 |
| MRPS33P2 | 0 | 0 |
| MRPS33P3 | 0 | 0 |
| MRPS33P4 | 0 | 0 |
| MRPS34 | 7.90284125 | 6.667827 |
| MRPS35 | 0.95825905 | 0.986141 |
| MRPS35P1 | 0 | 0 |
| MRPS35P2 | 0 | 0 |
| MRPS35P3 | 0 | 0 |
| MRPS36 | 4.85686727 | 4.241449 |

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| MRPS36P1 | 0 | 0 |
| MRPS36P2 | 0 | 0 |
| MRPS36P3 | 0 | 0 |
| MRPS36P4 | 0 | 0 |
| MRPS36P5 | 0 | 0 |
| MRPS36P6 | 0 | 0 |
| MRPS5 | 6.89873894 | 5.593803 |
| MRPS5P3 | 0 | 0 |
| MRPS5P4 | 0 | 0 |
| MRPS6 | 7.96414052 | 4.632264 |
| MRPS6P1 | 0 | 0 |
| MRPS6P2 | 0 | 0 |
| MRPS6P4 | 0 | 0 |
| MRPS7 | 3.62556944 | 3.089028 |
| MRPS7P1 | 0 | 0 |
| MRPS7P2 | 0 | 0 |
| MRPS9 | 1.34112193 | 1.392479 |
| MRRF | 3.6863373 | 3.587541 |
| MRRFP | 0 | 0 |
| MRS2 | 3.00182443 | 2.646767 |
| MRS2P2 | 0 | 0 |
| MRT04 | 0.24975096 | 0.073557 |
| MRVI1 | 0.02524049 | 0.014337 |
| MS4A1 | 0.40365827 | 0.511729 |
| MS4A10 | 0.02747212 | 0.010403 |
| MS4A12 | 0 | 0.020467 |
| MS4A13 | 0 | 0 |
| MS4A14 | 0.0062706 | 0 |
| MS4A15 | 0.01073269 | 0.012193 |
| MS4A2 | 0.06618143 | 0.080966 |
| MS4A3 | 0.11433715 | 0.115457 |
| MS4A4A | 0.03820472 | 0 |
| MS4A4E | 0.05744626 | 0.06526 |
| MS4A5 | 0 | 0 |
| MS4A6A | 0.09154716 | 0.103999 |
| MS4A6E | 0 | 0 |
| MS4A7 | 0.02794992 | 0.039689 |
| MS4A8B | 0 | 0 |
| MSC | 0 | 0.023212 |
| MSGN1 | 0 | 0 |
| MSH2 | 1.74486848 | 1.44298 |
| MSH3 | 1.29246623 | 1.101197 |
| MSH4 | 0.11815671 | 0.111857 |
| MSH5 | 1.31542363 | 1.372521 |
| MSH6 | 5.66440293 | 5.08276 |
| MSI1 | 0.02138169 | 0.008097 |
| MSI2 | 15.2998976 | 13.62521 |

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| MSL1 | 55.0283092 | 57.35054 |
| MSL2 | 22.9868136 | 26.83945 |
| MSL3 | 20.4491731 | 18.44249 |
| MSL3L2 | 0 | 0 |
| MSLN | 0 | 0.011505 |
| MSLNL | 0 | 0.015108 |
| MSMB | 0 | 0 |
| MSMP | 8.04093758 | 8.35268 |
| MSN | 176.888175 | 184.0898 |
| MSNL1 | 0 | 0 |
| MSR1 | 0 | 0 |
| MSRA | 7.06886127 | 7.170378 |
| MSRB2 | 1.70663923 | 1.951958 |
| MSRB3 | 5.52687928 | 5.126078 |
| MST1 | 1.30788202 | 1.557502 |
| MST150 | 26.5398228 | 25.48148 |
| MST1R | 0.01762392 | 0.030032 |
| MST4 | 31.10312 | 32.01149 |
| MSTN | 0 | 0 |
| MSTO1 | 4.94612294 | 3.249941 |
| MSTO2P | 0 | 0 |
| MSTP2 | 0 | 0 |
| MSTP9 | 0 | 0 |
| MSX1 | 0.0108378 | 0.012312 |
| MSX2 | 0 | 0.021635 |
| MSX2P1 | 0 | 0 |
| MT1A | 0 | 0.060316 |
| MT1B | 0 | 0 |
| MT1CP | 0 | 0 |
| MT1DP | 0 | 0 |
| MT1E | 0 | 0 |
| MT1F | 0.52444136 | 0.324967 |
| MT1G | 0.10618854 | 0.180948 |
| MT1H | 0.05296053 | 0 |
| MT1IP | 0 | 0 |
| MT1JP | 0 | 0 |
| MT1L | 0 | 0 |
| MT1M | 0.14335453 | 0 |
| MT1P1 | 0 | 0 |
| MT1P2 | 0 | 0 |
| MT1P3 | 0 | 0 |
| MT1X | 4.42364637 | 2.778713 |
| MT2A | 16.4589703 | 12.37009 |
| MT2P1 | 0 | 0 |
| MT3 | 0 | 0 |
| MT4 | 0 | 0 |
| MTA1 | 8.26232689 | 8.219164 |

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| MTA2 | 30.7134737 | 32.12001 |
| MTA3 | 0.20379965 | 0.128622 |
| MTAP | 0.20931353 | 0.16014 |
| MTBP | 0.52236847 | 0.538762 |
| MTCH1 | 64.1378783 | 63.36347 |
| MTCH2 | 4.37627703 | 4.089916 |
| MTCO1P2 | 0 | 0 |
| MTCO2L | 0 | 0 |
| MTCP1 | 0.10875171 | 0.082362 |
| MTCP1NB | 4.85836064 | 5.237345 |
| MTCYBP1 | 0 | 0 |
| MTDH | 9.751673 | 9.19329 |
| MTERF | 3.22718903 | 2.937327 |
| MTERFD1 | 2.55713485 | 1.800727 |
| MTERFD2 | 4.63270004 | 4.416353 |
| MTERFD3 | 1.68202648 | 1.628224 |
| MTF1 | 7.67482603 | 5.974273 |
| MTF2 | 9.06615531 | 9.113141 |
| MTFMT | 0.87286516 | 0.756739 |
| MTFR1 | 1.32455595 | 1.287167 |
| MTG1 | 2.553262 | 2.308598 |
| MTHFD1 | 0.30489169 | 0.380998 |
| MTHFD1L | 0.1460904 | 0.21243 |
| MTHFD2 | 17.8542344 | 11.47315 |
| MTHFD2L | 0.24934742 | 0.141631 |
| MTHFR | 4.27312849 | 4.266039 |
| MTHFS | 41.9320088 | 46.82668 |
| MTHFSD | 1.93280637 | 1.888773 |
| MTIF2 | 4.96025038 | 4.780188 |
| MTIF2P1 | 0 | 0 |
| MTIF3 | 24.6446168 | 21.24705 |
| MTL5 | 0.69219197 | 0.519547 |
| MTM1 | 11.6753002 | 9.016003 |
| MTMR1 | 15.5765995 | 11.77644 |
| MTMR10 | 12.862705 | 15.12258 |
| MTMR11 | 0.13570566 | 0.102776 |
| MTMR12 | 2.89012165 | 2.666181 |
| MTMR14 | 32.8052421 | 32.68539 |
| MTMR15 | 3.10052967 | 2.593523 |
| MTMR2 | 0.25463963 | 0.244387 |
| MTMR3 | 50.9163159 | 49.65052 |
| MTMR4 | 11.8562812 | 11.55943 |
| MTMR6 | 9.64601553 | 11.72275 |
| MTMR7 | 0.69902399 | 0.713451 |
| MTMR8 | 0.21511328 | 0.153864 |
| MTMR9 | 3.92911937 | 3.60244 |
| MTND1P1 | 0 | 0 |

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| MTND2P2 | 0 | 0 |
| MTND2P3 | 0 | 0 |
| MTND6P1 | 0 | 0 |
| MTNR1A | 0 | 0 |
| MTNR1B | 0 | 0 |
| MTO1 | 2.352626 | 1.837905 |
| MTP18 | 0.03597148 | 0.081728 |
| MTPAP | 2.71234252 | 2.027259 |
| MTPN | 22.7034598 | 21.32687 |
| MTPN-LUZP6 | 0 | 0 |
| MTR | 4.92675401 | 3.952196 |
| MTRF1 | 2.5435428 | 1.933661 |
| MTRF1L | 7.32470916 | 6.621066 |
| MTRR | 7.71565933 | 5.674523 |
| MTSS1 | 0.26019372 | 0.243142 |
| MTSS1L | 0.28304143 | 0.196763 |
| MTTP | 0.00514067 | 0 |
| MTUS1 | 0.00567485 | 0.003223 |
| MTVR2 | 0 | 0 |
| MTX1 | 3.26321327 | 2.61675 |
| MTX1P | 0 | 0 |
| MTX2 | 0.83941435 | 1.15036 |
| MTX3 | 1.58206738 | 1.213221 |
| MUC1 | 0.03429907 | 0.058446 |
| MUC12 | 0.00125524 | 0 |
| MUC13 | 0 | 0.008349 |
| MUC15 | 0 | 0 |
| MUC16 | 0.00335899 | 0.002726 |
| MUC17 | 0.00439554 | 0 |
| MUC19 | 0.32390632 | 0.227271 |
| MUC2 | 0.00731485 | 0.00277 |
| MUC20 | 0.16764594 | 0.247942 |
| MUC21 | 0 | 0 |
| MUC3A | 0.00729413 | 0 |
| MUC4 | 0.00125704 | 0.002856 |
| MUC5AC | 0.0448684 | 0.057343 |
| MUC5B | 0 | 0 |
| MUC6 | 0.0420349 | 0.044768 |
| MUC7 | 0 | 0 |
| MUCL1 | 0 | 0 |
| MUDENG | 13.9466896 | 13.30466 |
| MUL1 | 10.0079891 | 9.775598 |
| MUM1 | 10.340915 | 17.28627 |
| MUM1L1 | 0 | 0 |
| MUPCDH | 0.22753356 | 0.391216 |
| MURC | 0.0159767 | 0.0363 |
| MUS81 | 28.2527885 | 29.40854 |

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| MUSK | 0.00773559 | 0.008788 |
| MUSTN1 | 7.21632122 | 6.342374 |
| MUT | 5.39493786 | 4.433038 |
| MUTED | 7.39128375 | 7.133967 |
| MUTYH | 4.38480364 | 4.723171 |
| MVD | 3.59597582 | 3.57944 |
| MVK | 0.77082738 | 0.645232 |
| MVP | 31.2041433 | 30.12187 |
| MX1 | 15.4030233 | 13.8474 |
| MX2 | 30.2208067 | 25.78882 |
| MXD1 | 267.195189 | 275.801 |
| MXD3 | 5.30123024 | 6.725007 |
| MXD4 | 21.3986936 | 19.01693 |
| MXI1 | 17.6042602 | 16.12478 |
| MXRA5 | 0.00214654 | 0 |
| MXRA5P1 | 0 | 0 |
| MXRA7 | 3.00053491 | 4.892279 |
| MXRA8 | 0.1295005 | 0.105082 |
| MYADM | 80.1731145 | 77.73179 |
| MYADML | 0 | 0 |
| MYADML2 | 0 | 0 |
| MYB | 8.59191746 | 2.318375 |
| MYBBP1A | 0.27616459 | 0.376473 |
| MYBL1 | 0.06889565 | 0.078267 |
| MYBL2 | 0.18599629 | 0.193687 |
| MYBPC1 | 0.05796457 | 0.041904 |
| MYBPC2 | 0 | 0.026554 |
| MYBPC3 | 5.73871376 | 7.176294 |
| MYBPH | 0 | 0.013225 |
| MYBPHL | 0.01532459 | 0.017409 |
| MYC | 0.09804097 | 0.091126 |
| MYCBP | 20.381801 | 19.98993 |
| MYCBP2 | 8.29169991 | 7.189037 |
| MYCBPAP | 0.00659101 | 0.022462 |
| MYCL1 | 0.02975082 | 0.004828 |
| MYCL2 | 0 | 0 |
| MYCL3 | 0 | 0 |
| MYCN | 0.03228458 | 0 |
| MYCNOS | 0 | 0 |
| MYCT1 | 3.34886224 | 1.02757 |
| MYD88 | 53.6404145 | 34.52027 |
| MYEF2 | 0.0661541 | 0.097256 |
| MYEOV | 0 | 0 |
| MYEOV2 | 6.48211785 | 6.199429 |
| MYF5 | 0 | 0 |
| MYF6 | 0 | 0 |
| MYH1 | 0.00349084 | 0 |

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| MYH10 | 0.80304125 | 0.658337 |
| MYH11 | 1.88385996 | 2.325891 |
| MYH13 | 0.0035089 | 0 |
| MYH14 | 0.00925818 | 0.010517 |
| MYH15 | 0.01783319 | 0.006753 |
| MYH16 | 0 | 0 |
| MYH2 | 0 | 0 |
| MYH3 | 7.2386862 | 5.195517 |
| MYH4 | 0.0069898 | 0 |
| MYH6 | 0.00708281 | 0 |
| MYH7 | 0 | 0.003961 |
| MYH7B | 0.46136042 | 0.554496 |
| MYH8 | 0 | 0.003956 |
| MYH9 | 710.531508 | 811.5304 |
| MYL1 | 0 | 0 |
| MYL10 | 0 | 0.035074 |
| MYL12A | 328.860811 | 324.752 |
| MYL12B | 379.973065 | 457.0612 |
| MYL2 | 0 | 0 |
| MYL3 | 0.02263222 | 0 |
| MYL4 | 0.06646575 | 0.025169 |
| MYL5 | 0.41350878 | 0.325213 |
| MYL6 | 936.882055 | 829.2948 |
| MYL6B | 0.82262515 | 0.659658 |
| MYL6P | 0 | 0 |
| MYL7 | 0 | 0 |
| MYL8P | 0 | 0 |
| MYL9 | 1.41704 | 1.227457 |
| MYLIP | 42.1464805 | 40.74153 |
| MYLK | 0.02312452 | 0.017513 |
| MYLK2 | 0.00752787 | 0 |
| MYLK3 | 0.03417471 | 0.050769 |
| MYLK4 | 0.10220647 | 0.087081 |
| MYLKP | 0 | 0 |
| MYLPF | 0.89879277 | 0.729316 |
| MYNN | 7.09789412 | 5.876011 |
| MYO10 | 0.0404687 | 0.041794 |
| MYO15A | 0.05848739 | 0.062416 |
| MYO15B | 0 | 0 |
| MYO16 | 0.0244694 | 0.024323 |
| MYO18A | 45.355712 | 66.40142 |
| MYO18B | 0.01227398 | 0.002789 |
| MYO19 | 2.59810924 | 2.211954 |
| MYO1A | 0.02327742 | 0.006611 |
| MYO1B | 0.00412666 | 0.004688 |
| MYO1C | 0.61899895 | 0.843831 |
| MYO1D | 0.13795084 | 0.106013 |

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| MYO1E | 0.01783697 | 0.030395 |
| MYO1F | 415.924668 | 493.9169 |
| MYO1G | 76.2995123 | 81.98442 |
| MYO1H | 0.06075089 | 0.150576 |
| MYO3A | 0.00727017 | 0.00413 |
| MYO3B | 0.00760547 | 0 |
| MYO5A | 10.544483 | 9.378202 |
| MYO5B | 0.01105665 | 0.017585 |
| MYO5C | 0.0302697 | 0.013755 |
| MYO6 | 0.04611883 | 0.035847 |
| MYO7A | 0.00544416 | 0.006185 |
| MYO7B | 0.10958847 | 0.074697 |
| MYO9A | 1.07425166 | 0.920772 |
| MYO9B | 202.643591 | 184.9772 |
| MYOC | 0 | 0.01168 |
| MYOCD | 0 | 0.008479 |
| MYOD1 | 0.01164193 | 0.013225 |
| MYOF | 0.01229012 | 0.017452 |
| MYOG | 0.01205581 | 0 |
| MYOM1 | 3.76132994 | 2.904449 |
| MYOM2 | 0.02097918 | 0.009533 |
| MYOM3 | 0 | 0.004118 |
| MYOT | 0.04627053 | 0.010513 |
| MYOZ1 | 0 | 0.030999 |
| MYOZ2 | 0 | 0.009222 |
| MYOZ3 | 0 | 0.006235 |
| MYPN | 0 | 0 |
| MYPOP | 8.53492502 | 10.68311 |
| MYRIP | 0.00863463 | 0.019618 |
| MYSM1 | 11.1014397 | 9.447027 |
| MYST1 | 44.7078368 | 46.68933 |
| MYST2 | 15.5502307 | 13.76954 |
| MYST3 | 41.9487621 | 45.56049 |
| MYST4 | 3.58045402 | 3.413755 |
| MYT1 | 0.01139584 | 0.017261 |
| MYT1L | 0.00589275 | 0.006694 |
| MZF1 | 3.13832396 | 2.444932 |
| N4BP1 | 19.4453244 | 21.04485 |
| N4BP2 | 1.98788309 | 2.030689 |
| N4BP2L1 | 3.21182848 | 2.690524 |
| N4BP2L2 | 22.18123 | 20.26305 |
| N4BP3 | 0.34767125 | 0.79391 |
| N6AMT1 | 0.20744417 | 0.073644 |
| N6AMT2 | 0.02411162 | 0.054782 |
| NAAA | 11.2512602 | 10.86111 |
| NAALAD2 | 0.21051646 | 0.201783 |
| NAALADL1 | 0.32081822 | 0.266674 |

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| NAALADL2 | 0 | 0 |
| NAB1 | 6.44544717 | 6.728877 |
| NAB2 | 0.6049339 | 0.59911 |
| NACA | 16.6431648 | 16.3766 |
| NACA2 | 0.16383375 | 0.124078 |
| NACA3P | 0 | 0 |
| NACAD | 0.03970373 | 0.015035 |
| NACAP1 | 0 | 0 |
| NACC1 | 8.34271649 | 8.201033 |
| NACC2 | 5.86283267 | 8.038258 |
| NADK | 151.044418 | 118.7537 |
| NADSYN1 | 55.7996556 | 57.56773 |
| NAE1 | 7.12946858 | 5.486951 |
| NAF1 | 0.62667293 | 1.021437 |
| NAGA | 3.21643549 | 2.859033 |
| NAGK | 44.9893994 | 36.19186 |
| NAGLU | 2.29669443 | 2.737819 |
| NAGPA | 2.19510945 | 1.962417 |
| NAGS | 0.15221041 | 0.172913 |
| NAIF1 | 0.38362876 | 0.196817 |
| NAIP | 2.56116839 | 2.27512 |
| NALCN | 0 | 0 |
| NAMPT | 95.7290385 | 42.82847 |
| NAMPTL | 0 | 0 |
| NANOG | 0.01002161 | 0 |
| NANOGP1 | 0 | 0 |
| NANOGP10 | 0 | 0 |
| NANOGP11 | 0 | 0 |
| NANOGP2 | 0 | 0 |
| NANOGP3 | 0 | 0 |
| NANOGP4 | 0 | 0 |
| NANOGP5 | 0 | 0 |
| NANOGP6 | 0 | 0 |
| NANOGP7 | 0 | 0 |
| NANOGP8 | 0 | 0 |
| NANOGP9 | 0 | 0 |
| NANOS1 | 0.32717178 | 0.299403 |
| NANOS2 | 0 | 0 |
| NANOS3 | 0.22225508 | 0.605965 |
| NANP | 0.29317089 | 0.282776 |
| NANS | 3.57769745 | 4.045059 |
| NAP1L1 | 29.9482763 | 24.19736 |
| NAP1L1P2 | 0 | 0 |
| NAP1L2 | 0.01661425 | 0.009437 |
| NAP1L3 | 0.01569055 | 0.008912 |
| NAP1L4 | 24.1732856 | 20.87813 |
| NAP1L5 | 0 | 0 |

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| NAP1L6 | 0 | 0 |
| NAP5 | 0 | 0 |
| NAPA | 111.872567 | 110.9452 |
| NAPB | 4.95895819 | 5.04728 |
| NAPEPLD | 0.66255471 | 0.547803 |
| NAPG | 8.13281308 | 8.846813 |
| NAPRT1 | 17.1303729 | 26.77387 |
| NAPSA | 0.43802773 | 0.2917 |
| NAPSB | 0 | 0 |
| NARF | 102.160509 | 121.6949 |
| NARFL | 3.60635156 | 3.42357 |
| NARG1 | 1.41203609 | 1.191245 |
| NARG1L | 5.92939974 | 5.607175 |
| NARG2 | 2.59280333 | 2.554504 |
| NARS | 34.0818562 | 41.06606 |
| NARS2 | 0.65140444 | 0.569235 |
| NARSP | 0 | 0 |
| NASP | 9.72166395 | 8.420661 |
| NASPP1 | 0 | 0 |
| NAT1 | 5.04962303 | 4.662964 |
| NAT10 | 1.90950172 | 1.826404 |
| NAT11 | 6.51232623 | 6.392192 |
| NAT12 | 3.06335548 | 3.319897 |
| NAT13 | 11.876725 | 11.91584 |
| NAT14 | 0.48039599 | 0.472972 |
| NAT15 | 72.5846806 | 74.70502 |
| NAT2 | 0 | 0.018136 |
| NAT5 | 7.58770127 | 7.231989 |
| NAT6 | 0.29910513 | 0.559651 |
| NAT8 | 0.0195949 | 0.02226 |
| NAT8B | 0.02527083 | 0.086124 |
| NAT8L | 0.26034782 | 0.295759 |
| NAT9 | 3.31919891 | 2.292971 |
| NAV1 | 0.08889178 | 0.091802 |
| NAV2 | 0.00740981 | 0.012626 |
| NAV3 | 0.00430935 | 0.002448 |
| NBAS | 1.39167942 | 1.53833 |
| NBEA | 0.00779293 | 0 |
| NBEAL1 | 0.21819178 | 0.192494 |
| NBEAL2 | 104.057166 | 129.911 |
| NBL1 | 0.086524 | 0.458699 |
| NBLA00301 | 0 | 0 |
| NBN | 10.1372944 | 8.513044 |
| NBPF1 | 8.50137624 | 6.230414 |
| NBPF10 | 5.4382494 | 3.647717 |
| NBPF11 | 0.1171843 | 0.154143 |
| NBPF13P | 0 | 0 |

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| NBPF14 | 31.3869606 | 24.24122 |
| NBPF15 | 10.2145451 | 8.716282 |
| NBPF16 | 0.81774323 | 1.053663 |
| NBPF17P | 0 | 0 |
| NBPF18P | 0 | 0 |
| NBPF20 (NC_000 | 2.00608662 | 1.643471 |
| NBPF20 (NC_000 | 1.39504566 | 1.256515 |
| NBPF21P | 0 | 0 |
| NBPF22P | 0 | 0 |
| NBPF2P | 0 | 0 |
| NBPF3 | 1.10542101 | 0.849868 |
| NBPF4 | 0.04360809 | 0.042462 |
| NBPF6 | 0.01892469 | 0 |
| NBPF7 | 0.0891376 | 0.025315 |
| NBPF8 | 0.01088737 | 0.004123 |
| NBPF9 | 6.4010452 | 4.989334 |
| NBR1 | 29.8866293 | 27.48605 |
| NBR2 | 0 | 0 |
| NCALD | 0.01874333 | 0.005323 |
| NCAM1 | 0.00748854 | 0.01985 |
| NCAM2 | 0.02273623 | 0.038743 |
| NCAN | 0.00328213 | 0.007457 |
| NCAPD2 | 12.2319653 | 11.35114 |
| NCAPD3 | 3.015944 | 2.399164 |
| NCAPG | 0.12171611 | 0.13315 |
| NCAPG2 | 0.46520951 | 0.419144 |
| NCAPH | 0.10758234 | 0.138156 |
| NCAPH2 | 11.6760559 | 11.00401 |
| NCBP1 | 7.28325904 | 7.38614 |
| NCBP2 | 15.0568499 | 12.90016 |
| NCBP2L | 0 | 0 |
| NCCRP1 | 0 | 0 |
| NCDN | 0.5334362 | 0.457717 |
| NCF1 | 1037.53541 | 1036.952 |
| NCF1B | 0 | 0 |
| NCF1C | 0 | 0 |
| NCF2 | 657.693344 | 559.5885 |
| NCF4 | 426.3932 | 365.4582 |
| NCK1 | 10.7103959 | 10.03324 |
| NCK2 | 13.2062721 | 11.85622 |
| NCKAP1 | 0.47207133 | 0.68582 |
| NCKAP1L | 95.8642755 | 91.44813 |
| NCKIPSD | 0.56058088 | 0.548156 |
| NCL | 46.9877842 | 41.82751 |
| NCLN | 20.0171514 | 24.50575 |
| NCOA1 | 25.6193295 | 25.2113 |
| NCOA2 | 10.7021906 | 10.2725 |

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| NCOA3 | 17.5409818 | 16.68195 |
| NCOA4 | 96.7309445 | 84.44047 |
| NCOA4P | 0 | 0 |
| NCOA5 | 7.68548246 | 7.599469 |
| NCOA6 | 19.1198917 | 19.59648 |
| NCOA7 | 2.14685781 | 2.202422 |
| NCOR1 | 42.2180145 | 43.39455 |
| NCOR2 | 48.3906004 | 71.10426 |
| NCR1 | 0.05470598 | 0.062147 |
| NCR2 | 0.0223436 | 0.025383 |
| NCR3 | 0.01717756 | 0.019514 |
| NCRNA00028 | 0 | 0 |
| NCRNA00032 | 0 | 0 |
| NCRNA00051 | 0 | 0 |
| NCRNA00052 | 0 | 0 |
| NCRNA00081 | 0 | 0 |
| NCRNA00083 | 0 | 0 |
| NCRNA00084 | 0 | 0 |
| NCRNA00085 | 0 | 0 |
| NCRNA00086 | 0 | 0 |
| NCRNA00087 | 0 | 0 |
| NCRNA00092 | 0 | 0 |
| NCRNA00093 | 0 | 0 |
| NCRNA00094 | 0 | 0 |
| NCRNA00095 | 0 | 0 |
| NCRNA00099 | 0 | 0 |
| NCRNA00105 | 0 | 0 |
| NCRNA00107 (N | 0 | 0 |
| NCRNA00107 (N | 0 | 0 |
| NCRNA00108 (N | 0 | 0 |
| NCRNA00108 (N | 0 | 0 |
| NCRNA00110 | 0 | 0 |
| NCRNA00111 | 0 | 0 |
| NCRNA00112 | 0 | 0 |
| NCRNA00113 | 0 | 0 |
| NCRNA00114 | 0 | 0 |
| NCRNA00115 | 0 | 0 |
| NCRNA00116 | 0 | 0 |
| NCRNA00117 | 0 | 0 |
| NCRNA00119 | 0 | 0 |
| NCRNA00120 | 0 | 0 |
| NCRNA00152 | 0 | 0 |
| NCRNA00153 | 3.55248935 | 3.28996 |
| NCRNA00157 | 0 | 0 |
| NCRNA00158 | 0 | 0 |
| NCRNA00159 | 0 | 0 |
| NCRNA00160 | 0 | 0 |

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| NCRNA00161 | 0 | 0 |
| NCRNA00162 | 0 | 0 |
| NCRNA00164 | 0 | 0 |
| NCRNA00167 | 0 | 0 |
| NCRNA00168 | 0 | 0 |
| NCRNA00169 | 0 | 0 |
| NCRNA00171 | 0 | 0 |
| NCRNA00174 | 0 | 0 |
| NCRNA00185 | 0 | 0 |
| NCRNA00230A | 0 | 0 |
| NCRNA00230B | 0 | 0 |
| NCRNA00265B | 0 | 0 |
| NCRNA00265C | 0 | 0 |
| NCRNA00268B | 0 | 0 |
| NCSTN | 47.8460598 | 46.06123 |
| ND1 | 0 | 0 |
| ND2 | 0 | 0 |
| ND3 | 0 | 0 |
| ND4 | 0 | 0 |
| ND4L | 0 | 0 |
| ND5 | 0 | 0 |
| ND6 | 0 | 0 |
| NDC80 | 0.09680171 | 0.098971 |
| NDE1 | 18.9989195 | 20.88531 |
| NDEL1 | 40.9339638 | 31.41734 |
| NDFIP1 | 9.07181364 | 9.615134 |
| NDFIP2 | 28.8978657 | 37.53115 |
| NDN | 0.02216693 | 0 |
| NDNL2 | 0.20265379 | 0.402881 |
| NDOR1 | 13.9206056 | 14.8982 |
| NDP | 0 | 0.011919 |
| NDRG1 | 1.0397806 | 1.593256 |
| NDRG2 | 0.20078761 | 0.369301 |
| NDRG3 | 2.52530966 | 2.328879 |
| NDRG4 | 0.00535814 | 0.006087 |
| NDST1 | 51.5421719 | 55.74481 |
| NDST2 | 22.840581 | 30.66929 |
| NDST3 | 0.01060635 | 0 |
| NDST4 | 0 | 0 |
| NDUFA1 | 64.0710188 | 60.79399 |
| NDUFA10 | 13.0255161 | 11.57497 |
| NDUFA11 | 17.8675841 | 17.60742 |
| NDUFA12 | 10.2323277 | 8.678256 |
| NDUFA13 | 25.1292577 | 23.26644 |
| NDUFA2 | 31.2509612 | 29.30613 |
| NDUFA3 | 27.2616579 | 27.12377 |
| NDUFA4 | 57.4556128 | 62.42633 |

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| NDUFA4L2 | 0.01769809 | 0.020105 |
| NDUFA4P1 | 0 | 0 |
| NDUFA5 | 8.11170833 | 7.689464 |
| NDUFA6 | 19.9421002 | 18.17608 |
| NDUFA7 | 7.50623965 | 7.098565 |
| NDUFA8 | 8.94323912 | 8.461668 |
| NDUFA9 | 5.38473803 | 4.385524 |
| NDUFA9P1 | 0 | 0 |
| NDUFAB1 | 8.66861471 | 8.522723 |
| NDUFAF1 | 3.96840495 | 3.049163 |
| NDUFAF2 | 0.87727389 | 0.597958 |
| NDUFAF3 | 8.47030394 | 8.71537 |
| NDUFAF4 | 0.21630999 | 0.262114 |
| NDUFB1 | 24.5796131 | 23.77137 |
| NDUFB10 | 24.9468418 | 22.00034 |
| NDUFB11 | 18.4402493 | 16.32802 |
| NDUFB11P | 0 | 0 |
| NDUFB1P | 0 | 0 |
| NDUFB2 | 14.3566906 | 12.54571 |
| NDUFB3 | 8.10380306 | 7.402802 |
| NDUFB3P1 | 0 | 0 |
| NDUFB3P2 | 0 | 0 |
| NDUFB3P3 | 0 | 0 |
| NDUFB3P4 | 0 | 0 |
| NDUFB3P5 | 0 | 0 |
| NDUFB4 | 32.6351437 | 31.90724 |
| NDUFB5 | 6.67092654 | 5.796481 |
| NDUFB6 | 10.2931435 | 9.892093 |
| NDUFB7 | 4.68520266 | 3.738921 |
| NDUFB8 | 28.043991 | 23.85029 |
| NDUFB8P1 | 0 | 0 |
| NDUFB8P2 | 0 | 0 |
| NDUFB8P3 | 0 | 0 |
| NDUFB9 | 20.7036639 | 19.43364 |
| NDUFC1 | 21.5356545 | 20.23277 |
| NDUFC2 | 5.92825877 | 5.314244 |
| NDUFS1 | 9.61122826 | 8.50693 |
| NDUFS2 | 26.4927407 | 24.10735 |
| NDUFS3 | 17.3316917 | 18.37109 |
| NDUFS4 | 0.83976914 | 0.247331 |
| NDUFS5 | 30.2007689 | 41.31984 |
| NDUFS6 | 30.9660128 | 26.3498 |
| NDUFS7 | 11.0209114 | 11.5779 |
| NDUFS8 | 10.96283 | 9.776651 |
| NDUFV1 | 16.4103288 | 14.95199 |
| NDUFV2 | 18.7768883 | 14.51041 |
| NDUFV2P1 | 0 | 0 |

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| NDUFV3 | 4.59990809 | 4.306048 |
| NEB | 0.0805451 | 0.076443 |
| NEBL | 0.00635398 | 0.004812 |
| NECAB1 | 0.02863372 | 0.004647 |
| NECAB2 | 0 | 0.014872 |
| NECAB3 | 7.89867755 | 8.258461 |
| NECAP1 | 46.2687067 | 38.33413 |
| NECAP2 | 27.4581532 | 25.31913 |
| NEDD1 | 4.66887535 | 4.464615 |
| NEDD4 | 0.01105433 | 0.012558 |
| NEDD4L | 0.20315385 | 0.255602 |
| NEDD8 | 64.1861304 | 55.45167 |
| NEDD9 | 45.4092929 | 52.25295 |
| NEFH | 0.10735858 | 0.083447 |
| NEFL | 0.00585827 | 0.01331 |
| NEFLP1 | 0 | 0 |
| NEFM | 0 | 0 |
| NEGR1 | 0.00370883 | 0 |
| NEIL1 | 0.6556525 | 0.631213 |
| NEIL2 | 0.15285591 | 0.095506 |
| NEIL3 | 0.00875326 | 0.019888 |
| NEK1 | 1.42181842 | 1.389426 |
| NEK10 | 0.00796716 | 0.009051 |
| NEK11 | 0.05131258 | 0.058292 |
| NEK2 | 0.09871047 | 0.078496 |
| NEK2P | 0 | 0 |
| NEK3 | 1.20938554 | 1.141807 |
| NEK4 | 3.64030811 | 3.298052 |
| NEK5 | 0 | 0 |
| NEK6 | 32.4582843 | 38.70377 |
| NEK7 | 15.1103673 | 14.30564 |
| NEK8 | 1.38305186 | 1.32045 |
| NEK9 | 20.2742908 | 21.29537 |
| NELF | 3.29583155 | 3.443017 |
| NELL1 | 0 | 0 |
| NELL2 | 0.06455581 | 0.073336 |
| NENF | 2.57000884 | 1.837316 |
| NEO1 | 0.01493913 | 0.010183 |
| NES | 0.0037829 | 0 |
| NET1 | 1.6824843 | 1.521262 |
| NETO1 | 0 | 0 |
| NETO2 | 0.58131903 | 0.73885 |
| NEU1 | 18.6192453 | 18.28001 |
| NEU2 | 0 | 0 |
| NEU3 | 2.41776004 | 2.068652 |
| NEU4 | 0.04566753 | 0.041503 |
| NEURL | 0.00487261 | 0 |

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| NEURL1B | 0.0032765 | 0.011166 |
| NEURL2 | 0.78490116 | 0.910632 |
| NEURL3 | 0 | 0 |
| NEURL4 | 7.77049536 | 8.412974 |
| NEUROD1 | 0 | 0.009082 |
| NEUROD2 | 0.01386895 | 0.007878 |
| NEUROD4 | 0 | 0.006038 |
| NEUROD6 | 0 | 0 |
| NEUROG1 | 0 | 0.01432 |
| NEUROG2 | 0 | 0.010444 |
| NEUROG3 | 0 | 0 |
| NEXN | 0.03100167 | 0.056349 |
| NF1 | 1.81444945 | 1.524235 |
| NF1L1 | 0 | 0 |
| NF1L2 | 0 | 0 |
| NF1L4 | 0 | 0 |
| NF1L5 | 0 | 0 |
| NF1L6 | 0 | 0 |
| NF1L7 | 0 | 0 |
| NF1P1 | 0 | 0 |
| NF2 | 2.05243664 | 1.755599 |
| NFAM1 | 3.34979849 | 5.203161 |
| NFASC | 0.01668843 | 0.00237 |
| NFAT5 | 10.411376 | 10.3879 |
| NFATC1 | 7.54074586 | 8.475495 |
| NFATC2 | 15.478034 | 14.824 |
| NFATC2IP | 22.0719879 | 22.02457 |
| NFATC3 | 23.0044032 | 23.87986 |
| NFATC4 | 0.00352537 | 0.00801 |
| NFE2 | 22.8178391 | 25.71651 |
| NFE2L1 | 21.0339585 | 20.05781 |
| NFE2L2 | 33.7979048 | 34.79789 |
| NFE2L3 | 5.16774286 | 5.895798 |
| NF-E4 | 0.04371171 | 0 |
| NFIA | 0.16571896 | 0.221622 |
| NFIB | 0.0051539 | 0.002927 |
| NFIC | 5.20362182 | 5.355706 |
| NFIL3 | 40.8607391 | 33.04966 |
| NFIX | 0.88611061 | 1.332186 |
| NFKB1 | 32.5081984 | 49.01564 |
| NFKB2 | 17.7723078 | 15.33127 |
| NFKBIA | 49.8596872 | 71.91445 |
| NFKBIB | 18.7945266 | 16.98989 |
| NFKBID | 17.7695 | 22.45252 |
| NFKBIE | 21.6688804 | 40.6815 |
| NFKBIL1 | 2.47433845 | 2.76627 |
| NFKBIL2 | 0.44705023 | 0.407343 |

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| NFKBIZ | 5.14669454 | 4.38075 |
| NFRKB | 6.07103414 | 5.315419 |
| NFS1 | 1.89768909 | 1.783072 |
| NFU1 | 7.4657743 | 6.639251 |
| NFX1 | 12.1176526 | 11.54475 |
| NFXL1 | 1.79346975 | 1.358273 |
| NFYA | 6.09900258 | 5.891583 |
| NFYAP | 0 | 0 |
| NFYB | 2.88026504 | 2.627225 |
| NFYC | 16.3447539 | 14.9356 |
| NGB | 0 | 0 |
| NGDN | 7.65279679 | 7.550582 |
| NGEF | 0.00610669 | 0.013875 |
| NGF | 0.02004321 | 0 |
| NGFR | 0.01849736 | 0.028018 |
| NGFRAP1 | 0.01687426 | 0.038339 |
| NGLY1 | 11.8285865 | 11.43312 |
| NGRN | 21.7540498 | 25.02508 |
| NHEDC1 | 0.20661299 | 0.201185 |
| NHEDC1P1 | 0 | 0 |
| NHEDC2 | 0.01876703 | 0.028426 |
| NHEJ1 | 1.69962257 | 1.374274 |
| NHLH1 | 0.49297376 | 0.597361 |
| NHLH2 | 0 | 0.008912 |
| NHLRC1 | 0.06896781 | 0.089541 |
| NHLRC2 | 4.10612346 | 3.156581 |
| NHLRC3 | 2.84958698 | 2.523786 |
| NHP2 | 2.65583128 | 3.072938 |
| NHP2L1 | 20.6660295 | 20.23971 |
| NHP2P1 | 0 | 0 |
| NHS | 0.00460476 | 0.005231 |
| NHSL1 | 0.07497265 | 0.098797 |
| NHSL2 | 27.7113651 | 20.34257 |
| NIACR1 | 1.98544288 | 0.728698 |
| NIACR2 | 3.30580777 | 1.262994 |
| NICN1 | 5.1341682 | 4.45579 |
| NICN2P | 0 | 0 |
| NID1 | 0.00357391 | 0.01218 |
| NID2 | 0.13333543 | 0.175139 |
| NIF3L1 | 4.44673666 | 3.857308 |
| NIN | 65.5726817 | 41.35558 |
| NINJ1 | 623.193436 | 796.9721 |
| NINJ2 | 5.18704022 | 6.612262 |
| NINL | 0.00845579 | 0.014409 |
| NIP30 | 40.8251686 | 37.32048 |
| NIP7 | 2.6666743 | 2.22009 |
| NIPA1 | 0.41482668 | 0.50025 |

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| NIPA2 | 17.5892847 | 19.991 |
| NIPAL1 | 0 | 0.010887 |
| NIPAL2 | 3.79481583 | 3.569526 |
| NIPAL3 | 1.61971772 | 1.430641 |
| NIPAL4 | 0.01282423 | 0.014569 |
| NIPBL | 26.3843719 | 25.36571 |
| NIPSNAP1 | 2.2304244 | 1.696947 |
| NIPSNAP3A | 5.71662397 | 5.207042 |
| NIPSNAP3B | 1.84811699 | 1.731398 |
| NISCH | 28.9474541 | 27.74666 |
| NIT1 | 14.896802 | 12.24068 |
| NIT2 | 1.5218965 | 1.390636 |
| NKAIN1 | 0 | 0 |
| NKAIN2 | 0 | 0 |
| NKAIN3 | 0 | 0 |
| NKAIN4 | 0 | 0 |
| NKAP | 14.4040204 | 13.73962 |
| NKAPL | 0.12828146 | 0.058292 |
| NKD1 | 16.9031953 | 31.64361 |
| NKD2 | 0.04677493 | 0 |
| NKG7 | 0.71272308 | 0.896415 |
| NKIRAS1 | 1.06444031 | 0.921881 |
| NKIRAS2 | 10.7771351 | 10.00846 |
| NKPD1 | 0.00979745 | 0.01113 |
| NKRF | 1.82942594 | 1.855586 |
| NKTR | 41.9642801 | 37.5286 |
| NKX1-1 | 0.01701079 | 0 |
| NKX1-2 | 0 | 0.023167 |
| NKX2-1 | 0 | 0 |
| NKX2-2 | 0 | 0 |
| NKX2-3 | 0.02005277 | 0 |
| NKX2-4 | 0 | 0 |
| NKX2-5 | 0.01326519 | 0 |
| NKX2-6 | 0 | 0 |
| NKX2-8 | 0 | 0 |
| NKX3-1 | 0.10253133 | 0.043679 |
| NKX3-2 | 0.00938212 | 0.021316 |
| NKX6-1 | 0 | 0.021402 |
| NKX6-2 | 0 | 0.02344 |
| NKX6-3 | 0 | 0 |
| NLE1 | 0.06209031 | 0.052902 |
| NLGN1 | 0 | 0.004857 |
| NLGN2 | 0.0588818 | 0.082327 |
| NLGN3 | 1.30092548 | 1.128334 |
| NLGN4X | 0 | 0.004107 |
| NLGN4Y | 0 | 0 |
| NLK | 2.60070459 | 2.408072 |

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| NLN | 0.01459586 | 0.016581 |
| NLRC3 | 2.0595036 | 4.582239 |
| NLRC4 | 0.30009393 | 0.21307 |
| NLRC5 | 42.2725652 | 47.23104 |
| NLRP1 | 16.2162907 | 15.73151 |
| NLRP10 | 0 | 0.011824 |
| NLRP11 | 0 | 0 |
| NLRP12 | 6.69793429 | 4.888464 |
| NLRP13 | 0 | 0 |
| NLRP14 | 0 | 0 |
| NLRP2 | 1.940247 | 1.48304 |
| NLRP2P | 0 | 0 |
| NLRP3 | 0.14020003 | 0.100871 |
| NLRP3P | 0 | 0 |
| NLRP4 | 0 | 0 |
| NLRP5 | 0 | 0 |
| NLRP6 | 0.0235446 | 0.017831 |
| NLRP7 | 0.01229192 | 0.020946 |
| NLRP8 | 0 | 0.012143 |
| NLRP9 | 0.01206965 | 0.013711 |
| NLRP9P | 0 | 0 |
| NLRX1 | 33.211487 | 35.9425 |
| NMB | 1.16353773 | 0.997145 |
| NMBR | 0 | 0.01764 |
| NMD3 | 2.7283604 | 2.591639 |
| NME1 | 0.04078629 | 0.069501 |
| NME1-NME2 | 0.95933069 | 1.203337 |
| NME2 | 4.88221653 | 4.186269 |
| NME2P1 | 0 | 0 |
| NME3 | 5.97169163 | 5.723946 |
| NME4 | 35.9330631 | 36.69341 |
| NME5 | 0 | 0.019482 |
| NME6 | 4.12679931 | 3.253386 |
| NME7 | 0.46636594 | 0.485649 |
| NMI | 24.4229335 | 21.88257 |
| NMNAT1 | 0.76182765 | 0.650666 |
| NMNAT2 | 0.01076198 | 0.004075 |
| NMNAT3 | 0.06771443 | 0.076925 |
| NMNATP | 0 | 0 |
| NMRAL1 | 1.31215355 | 0.824229 |
| NMS | 0 | 0 |
| NMT1 | 13.2451839 | 11.81545 |
| NMT2 | 1.2184944 | 1.064424 |
| NMU | 0 | 0 |
| NMUR1 | 0.01926573 | 0.036477 |
| NMUR2 | 0 | 0 |
| NNAT | 0 | 0 |

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| NNMT | 0 | 0.015136 |
| NNT | 6.79006252 | 5.983599 |
| NOB1 | 1.50706044 | 1.280554 |
| NOBOX | 0 | 0 |
| NOC2L | 4.79828089 | 5.032934 |
| NOC3L | 0.2447652 | 0.278057 |
| NOC4L | 4.54775847 | 4.668719 |
| NOD1 | 6.36932846 | 5.91284 |
| NOD2 | 6.92874898 | 6.768779 |
| NODAL | 0.95752945 | 1.064868 |
| NOG | 0.02222551 | 0.025249 |
| NOL10 | 1.54005285 | 1.537668 |
| NOL11 | 6.52008022 | 5.635484 |
| NOL12 | 4.61965018 | 4.423791 |
| NOL3 | 0.06076685 | 0 |
| NOL4 | 0 | 0.006143 |
| NOL5BP | 0 | 0 |
| NOL6 | 2.78575887 | 2.593747 |
| NOL7 | 13.3753822 | 14.56609 |
| NOL8 | 8.85994498 | 7.725746 |
| NOL9 | 1.82313409 | 1.692248 |
| NOLC1 | 5.07471149 | 4.84256 |
| NOM1 | 1.43928545 | 1.131958 |
| NOMO1 | 13.465717 | 13.02517 |
| NOMO2 | 7.31659765 | 5.666606 |
| NOMO3 | 5.7691754 | 4.168131 |
| NONO | 57.1630269 | 55.63048 |
| NOP10 | 65.3946742 | 85.27207 |
| NOP14 | 2.23367121 | 1.784426 |
| NOP16 | 1.25290613 | 0.444788 |
| NOP2 | 3.52091471 | 4.174862 |
| NOP56 | 19.6250895 | 16.49885 |
| NOP58 | 4.50466378 | 3.841066 |
| NOS1 | 0 | 0.003352 |
| NOS1AP | 0.01526894 | 0.020815 |
| NOS2 | 0 | 0.011358 |
| NOS2P1 | 0 | 0 |
| NOS2P2 | 0 | 0 |
| NOS2P3 | 0 | 0 |
| NOS3 | 0.23339868 | 0.386669 |
| NOSIP | 28.6082372 | 28.47505 |
| NOSTRIN | 0.02539291 | 0 |
| NOTCH1 | 200.031312 | 260.4595 |
| NOTCH2 | 21.1320679 | 15.45163 |
| NOTCH2NL | 2.80930964 | 2.257581 |
| NOTCH3 | 0.01302523 | 0.017756 |
| NOTCH4 | 0.16209299 | 0.205387 |

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| NOTO | 0 | 0 |
| NOTUM | 0.00948369 | 0.010774 |
| NOV | 2.02897273 | 0.63363 |
| NOVA1 | 0 | 0 |
| NOVA2 | 0.01120156 | 0 |
| NOX1 | 0.00831369 | 0.009444 |
| NOX3 | 0 | 0 |
| NOX4 | 0.02247737 | 0.015321 |
| NOX5 | 0 | 0 |
| NOXA1 | 1.54503351 | 1.784436 |
| NOXO1 | 0.02755613 | 0 |
| NP | 4.28916752 | 4.410784 |
| N-PAC | 30.135181 | 30.8484 |
| NPAS1 | 0.0308742 | 0.023382 |
| NPAS2 | 0.00525108 | 0 |
| NPAS3 | 0.00713449 | 0.004052 |
| NPAS4 | 0.00636745 | 0 |
| NPAT | 4.56056354 | 4.291918 |
| NPB | 0.33373541 | 0.379129 |
| NPBWR1 | 1.29943788 | 2.129574 |
| NPBWR2 | 0.08393346 | 0.262212 |
| NPC1 | 5.83863114 | 4.875549 |
| NPC1L1 | 0.00833016 | 0.009463 |
| NPC2 | 25.5960551 | 21.46198 |
| NPDC1 | 0.01376003 | 0.015632 |
| NPEPL1 | 18.0904449 | 17.66514 |
| NPEPPS | 26.6220715 | 24.57871 |
| NPFF | 4.90117512 | 3.953954 |
| NPFFR1 | 0 | 0 |
| NPFFR2 | 0 | 0 |
| NPHP1 | 0 | 0 |
| NPHP3 | 3.84094035 | 3.344805 |
| NPHP4 | 3.11470817 | 3.447631 |
| NPHS1 | 0.00431909 | 0.004907 |
| NPHS2 | 0 | 0 |
| NPIP | 3.7204533 | 3.662961 |
| NPIPL1 | 1.88233537 | 1.896284 |
| NPIPL2 | 0.74673761 | 0.78645 |
| NPIPL3 | 21.3034438 | 22.51603 |
| NPL | 44.2588636 | 37.9053 |
| NPL2 | 0 | 0.009608 |
| NPLOC4 | 23.9720448 | 23.46531 |
| NPM1 | 10.8361321 | 9.22898 |
| NPM1P1 | 0 | 0 |
| NPM1P10 | 0 | 0 |
| NPM1P12 | 0 | 0 |
| NPM1P13 | 0 | 0 |

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| NPM1P14 | 0 | 0 |
| NPM1P16 | 0 | 0 |
| NPM1P17 | 0 | 0 |
| NPM1P18 | 0 | 0 |
| NPM1P19 | 0 | 0 |
| NPM1P2 | 0 | 0 |
| NPM1P20 | 0 | 0 |
| NPM1P21 | 0 | 0 |
| NPM1P3 | 0 | 0 |
| NPM1P5 | 0 | 0 |
| NPM1P6 | 0 | 0 |
| NPM1P7 | 0 | 0 |
| NPM1P9 | 0 | 0 |
| NPM2 | 0.11468362 | 0.043427 |
| NPM3 | 0.31166397 | 0.462995 |
| NPNT | 0 | 0 |
| NPPA | 0.52563327 | 0.369651 |
| NPPB | 0 | 0 |
| NPPC | 0.0551846 | 0 |
| NPR1 | 0.01004795 | 0.011415 |
| NPR2 | 0.00612983 | 0.013927 |
| NPR3 | 0 | 0.027081 |
| NPS | 0 | 0 |
| NPSR1 | 0 | 0.013095 |
| NPTN | 35.6508992 | 31.42932 |
| NPTX1 | 0.01933542 | 0.030751 |
| NPTX2 | 0.01549969 | 0 |
| NPTXR | 0.0253143 | 0.032866 |
| NPVF | 0 | 0 |
| NPW | 0.02069422 | 0 |
| NPY | 0 | 0 |
| NPY1R | 0 | 0.008657 |
| NPY2R | 0 | 0 |
| NPY5R | 0 | 0 |
| NPY6R | 0 | 0 |
| NQO1 | 0.02434427 | 0.009218 |
| NQO2 | 21.8929258 | 25.77243 |
| NR0B1 | 0 | 0 |
| NR0B2 | 0.03308471 | 0.07517 |
| NR1D1 | 0.06081079 | 0.086353 |
| NR1D2 | 8.30327019 | 8.98073 |
| NR1H2 | 63.5540725 | 56.99147 |
| NR1H3 | 0.8082225 | 0.44596 |
| NR1H4 | 0 | 0.011146 |
| NR1H5P | 0 | 0 |
| NR1I2 | 0 | 0 |
| NR1I3 | 0.14932763 | 0.237494 |

| | | |
|---------|------------|----------|
| NR2C1 | 4.48096208 | 4.194952 |
| NR2C2 | 18.7334942 | 17.81204 |
| NR2C2AP | 0.85784645 | 0.459683 |
| NR2E1 | 0.0193544 | 0 |
| NR2E3 | 0.00748232 | 0 |
| NR2F1 | 0 | 0 |
| NR2F2 | 0.00688227 | 0.015637 |
| NR2F6 | 4.49876815 | 7.864609 |
| NR3C1 | 18.1224306 | 19.42239 |
| NR3C2 | 0.06090145 | 0.036627 |
| NR4A1 | 4.19719154 | 5.608975 |
| NR4A2 | 12.0995391 | 17.61451 |
| NR4A3 | 12.6615977 | 13.04575 |
| NR5A1 | 0.01358664 | 0.007717 |
| NR5A2 | 0 | 0.004733 |
| NR6A1 | 0.71853129 | 0.665568 |
| NRAP | 0 | 0 |
| NRARP | 5.11795542 | 5.422221 |
| NRAS | 13.4701627 | 12.48065 |
| NRBF2 | 21.5576178 | 20.52154 |
| NRBP1 | 70.2977785 | 68.84468 |
| NRBP2 | 4.9567022 | 5.110907 |
| NRCAM | 0.82665242 | 0.829415 |
| NRD1 | 45.7115554 | 43.4512 |
| NRF1 | 9.04483746 | 9.569862 |
| NRG1 | 0.01015553 | 0.015382 |
| NRG2 | 0.00677581 | 0 |
| NRG3 | 0.00569484 | 0.006469 |
| NRG4 | 0 | 0 |
| NRGN | 0.84584665 | 0.666744 |
| NRIP1 | 5.74328786 | 7.94379 |
| NRIP2 | 1.0069748 | 0.696685 |
| NRIP3 | 1.22541966 | 1.42345 |
| NRK | 0 | 0.002963 |
| NRL | 0.43669634 | 0.483994 |
| NRM | 1.30389649 | 1.683235 |
| NRN1 | 0.01022136 | 0.023223 |
| NRN1L | 1.12932267 | 1.282928 |
| NRP1 | 0 | 0 |
| NRP2 | 0.00272384 | 0.012377 |
| NRSN1 | 0 | 0 |
| NRSN2 | 0.22029894 | 0.150158 |
| NRTN | 0 | 0 |
| NRXN1 | 0.00593601 | 0.002248 |
| NRXN2 | 0.00855152 | 0.025906 |
| NRXN3 | 0.00563757 | 0 |
| NS3BP | 0 | 0 |

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|---------|------------|----------|
| NSAP11 | 0 | 0 |
| NSBP1 | 0.23674635 | 0.217719 |
| NSD1 | 13.7190325 | 12.76104 |
| NSDHL | 1.98644231 | 1.78772 |
| NSF | 5.87526823 | 5.451058 |
| NSFL1C | 20.448346 | 19.43451 |
| NSL1 | 1.73991771 | 1.523082 |
| NSMAF | 15.0395309 | 13.9535 |
| NSMCE1 | 4.85047654 | 4.318212 |
| NSMCE2 | 5.30837564 | 5.202697 |
| NSMCE4A | 3.6319267 | 3.638475 |
| NSUN2 | 21.2042114 | 20.72752 |
| NSUN3 | 3.86807482 | 3.445448 |
| NSUN4 | 3.31779343 | 2.977562 |
| NSUN5 | 14.6792328 | 17.48001 |
| NSUN5B | 3.19328652 | 2.704465 |
| NSUN5C | 2.55762164 | 1.977922 |
| NSUN6 | 1.91533312 | 1.703266 |
| NSUN7 | 0.01705679 | 0 |
| NT5C | 46.5417262 | 53.50671 |
| NT5C1A | 0 | 0 |
| NT5C1B | 0.01469275 | 0.025037 |
| NT5C2 | 35.175563 | 33.41509 |
| NT5C3 | 25.3554637 | 23.1077 |
| NT5C3L | 0.37225176 | 0.53252 |
| NT5C3P1 | 0 | 0 |
| NT5CP1 | 0 | 0 |
| NT5CP2 | 0 | 0 |
| NT5DC1 | 4.86492158 | 5.053353 |
| NT5DC2 | 1.81744386 | 5.434874 |
| NT5DC3 | 0.04080325 | 0.046353 |
| NT5DC4 | 0.34147869 | 0.341744 |
| NT5E | 0 | 0.011775 |
| NT5M | 0.50312505 | 0.466271 |
| NTAN1 | 47.6284251 | 43.23806 |
| NTF3 | 0 | 0.017097 |
| NTF4 | 0.02104638 | 0 |
| NTF6A | 0 | 0 |
| NTF6B | 0 | 0 |
| NTF6G | 0 | 0 |
| NTHL1 | 0.57144761 | 0.111926 |
| NTM | 0 | 0.005703 |
| NTN1 | 0.22953418 | 0.216627 |
| NTN3 | 0.01058677 | 0.024053 |
| NTN4 | 0.00581614 | 0.013214 |
| NTN5 | 0.01145171 | 0.013009 |
| NTNG1 | 0 | 0 |

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| NTNG2 | 19.5696788 | 25.5233 |
| NTRK1 | 0.30172859 | 0.183925 |
| NTRK2 | 0 | 0.005659 |
| NTRK3 | 0 | 0.004688 |
| NTS | 0 | 0 |
| NTSR1 | 0.00508842 | 0.005781 |
| NTSR2 | 0.01307545 | 0 |
| NUAK1 | 0.00924732 | 0.014007 |
| NUAK2 | 22.5028535 | 27.71263 |
| NUB1 | 28.5570958 | 28.35156 |
| NUBP1 | 5.64885109 | 4.691718 |
| NUBP2 | 9.82804906 | 9.678481 |
| NUBPL | 0.5154952 | 0.491913 |
| NUCB1 | 38.2031949 | 37.12507 |
| NUCB2 | 12.4430309 | 8.267922 |
| NUCKS1 | 12.237896 | 12.05175 |
| NUDC | 21.152085 | 19.27728 |
| NUDCD1 | 0.34509975 | 0.286715 |
| NUDCD2 | 2.15132606 | 1.864449 |
| NUDCD3 | 5.90094707 | 5.654315 |
| NUDCP1 | 0 | 0 |
| NUDCP2 | 0 | 0 |
| NUDT1 | 3.51258512 | 2.793247 |
| NUDT10 | 0.01050741 | 0 |
| NUDT11 | 0.00877518 | 0 |
| NUDT12 | 0.12055809 | 0.075326 |
| NUDT13 | 0.94933766 | 0.919531 |
| NUDT14 | 0.51044156 | 0.414193 |
| NUDT15 | 1.5285478 | 1.26395 |
| NUDT16 | 3.69901974 | 2.640931 |
| NUDT16L1 | 15.9011071 | 14.95321 |
| NUDT16P | 0 | 0 |
| NUDT17 | 5.36694175 | 3.714976 |
| NUDT18 | 2.35306535 | 2.091323 |
| NUDT19 | 5.69746077 | 6.794416 |
| NUDT2 | 4.83979316 | 4.078495 |
| NUDT21 | 13.1962935 | 12.89373 |
| NUDT22 | 28.4913921 | 28.75613 |
| NUDT3 | 120.173587 | 114.398 |
| NUDT4 | 50.7351327 | 30.93204 |
| NUDT4P1 | 0 | 0 |
| NUDT5 | 10.59998 | 6.983022 |
| NUDT6 | 0 | 0 |
| NUDT7 | 0.05770905 | 0.021853 |
| NUDT8 | 0.10395714 | 0.029524 |
| NUDT9 | 0.98826468 | 1.06655 |
| NUDT9P1 | 0 | 0 |

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| NUF2 | 0.39111978 | 0.396284 |
| NUFIP1 | 0.27133349 | 0.328788 |
| NUFIP1P | 0 | 0 |
| NUFIP2 | 29.8045661 | 32.38101 |
| NUMA1 | 61.7264137 | 69.16106 |
| NUMB | 46.031858 | 45.29912 |
| NUMBL | 0.495964 | 0.543301 |
| NUP107 | 8.68876513 | 7.714493 |
| NUP133 | 7.84542326 | 6.61566 |
| NUP153 | 18.3301549 | 18.08918 |
| NUP155 | 3.97014629 | 3.83763 |
| NUP160 | 6.59702471 | 5.68841 |
| NUP188 | 4.46820621 | 4.118701 |
| NUP205 | 5.00219698 | 4.504899 |
| NUP210 | 12.7713316 | 12.6517 |
| NUP210L | 0.01429322 | 0.004059 |
| NUP214 | 13.7153575 | 13.56541 |
| NUP35 | 0.79826731 | 0.570434 |
| NUP37 | 4.47310435 | 4.13244 |
| NUP43 | 3.83570227 | 3.637389 |
| NUP50 | 56.1719818 | 42.61819 |
| NUP50P1 | 0 | 0 |
| NUP50P2 | 0 | 0 |
| NUP50P3 | 0 | 0 |
| NUP54 | 9.71774005 | 9.507369 |
| NUP62 | 1.62348271 | 1.767456 |
| NUP62CL | 0.05966325 | 0.054223 |
| NUP85 | 13.0555387 | 13.43602 |
| NUP88 | 4.80604469 | 3.67697 |
| NUP93 | 30.2435981 | 23.9462 |
| NUP98 | 45.31098 | 49.16031 |
| NUPL1 | 5.6575885 | 6.036778 |
| NUPL2 | 7.11374581 | 6.818621 |
| NUPR1 | 0.04610818 | 0.02619 |
| NUS1 | 5.10446613 | 4.880287 |
| NUSAP1 | 7.95834841 | 8.468357 |
| NUTF2 | 7.68872148 | 6.523924 |
| NUTF2P2 | 0 | 0 |
| NVL | 4.42790865 | 3.8877 |
| NWD1 | 0.02001698 | 0.019897 |
| NXF1 | 52.5405124 | 50.73642 |
| NXF2 | 0.00537595 | 0 |
| NXF2B | 0 | 0.006033 |
| NXF3 | 0 | 0.012598 |
| NXF4 | 0 | 0 |
| NXF5 | 0.05098286 | 0.03475 |
| NXN | 0.03499556 | 0.047707 |

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|--------|------------|----------|
| NXNL1 | 0.06946695 | 0 |
| NXNL2 | 0.04338101 | 0 |
| NXPH1 | 0 | 0 |
| NXPH2 | 0 | 0 |
| NXPH3 | 0 | 0 |
| NXPH4 | 0.01165484 | 0.03972 |
| NXT1 | 5.13868877 | 7.933192 |
| NXT2 | 1.36680272 | 1.073588 |
| NYX | 0.05598224 | 0.072682 |
| OAF | 0.0338754 | 0.064138 |
| OAS1 | 0.08456644 | 0.072052 |
| OAS2 | 0.24539209 | 0.23618 |
| OAS3 | 0.75826982 | 0.865011 |
| OASL | 74.9402868 | 98.4539 |
| OAT | 5.62778704 | 5.722715 |
| OATL3 | 0 | 0 |
| OAZ1 | 744.362764 | 870.3892 |
| OAZ2 | 39.9986072 | 28.98376 |
| OAZ3 | 0.05808102 | 0.043987 |
| OBFC1 | 6.94033754 | 5.91325 |
| OBFC2A | 4.10237037 | 3.425456 |
| OBFC2B | 1.23060467 | 1.176354 |
| OBP2A | 0 | 0 |
| OBP2B | 0 | 0 |
| OBSCN | 0.0359589 | 0.041778 |
| OBSL1 | 0 | 0.004089 |
| OC90 | 0 | 0.040211 |
| OCA2 | 0.01339193 | 0.030427 |
| OCEL1 | 5.66585454 | 5.276179 |
| OCIAD1 | 17.2605388 | 16.90331 |
| OCIAD2 | 14.2003544 | 17.72625 |
| OCLM | 0 | 0.027019 |
| OCLN | 0.00796414 | 0 |
| OCM | 0.18125285 | 0.343177 |
| OCM2 | 0.03575737 | 0 |
| OCRL | 0.28131624 | 0.213053 |
| ODAM | 0 | 0 |
| ODC1 | 5.06769616 | 7.876758 |
| ODF1 | 0 | 0 |
| ODF2 | 13.2397557 | 15.33823 |
| ODF2L | 6.36714816 | 5.463914 |
| ODF3 | 0.06549947 | 0.111613 |
| ODF3B | 9.2440857 | 10.57662 |
| ODF3L1 | 0.03524783 | 0 |
| ODF3L2 | 0.01310806 | 0 |
| ODF4 | 0.01829881 | 0 |
| ODZ1 | 0.00778356 | 0.011053 |

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|----------|------------|----------|
| ODZ2 | 0.00217992 | 0 |
| ODZ3 | 0.00583497 | 0.006629 |
| ODZ4 | 0.00155191 | 0.001763 |
| OFCC1 | 0 | 0 |
| OFD1 | 14.7309769 | 13.91499 |
| OFD1P1 | 0 | 0 |
| OFD1P10Y | 0 | 0 |
| OFD1P11Y | 0 | 0 |
| OFD1P12Y | 0 | 0 |
| OFD1P13Y | 0 | 0 |
| OFD1P14Y | 0 | 0 |
| OFD1P15Y | 0 | 0 |
| OFD1P16Y | 0 | 0 |
| OFD1P18Y | 0 | 0 |
| OFD1P1Y | 0 | 0 |
| OFD1P2Y | 0 | 0 |
| OFD1P3Y | 0 | 0 |
| OFD1P4Y | 0 | 0 |
| OFD1P5Y | 0 | 0 |
| OFD1P6Y | 0 | 0 |
| OFD1P7Y | 0 | 0 |
| OFD1P8Y | 0 | 0 |
| OFD1P9Y | 0 | 0 |
| OGDH | 28.9137452 | 31.73329 |
| OGDHL | 0 | 0 |
| OGFOD1 | 3.23734401 | 3.24268 |
| OGFOD2 | 5.80218268 | 4.868888 |
| OGFR | 58.9404319 | 62.32829 |
| OGFRL1 | 0.29000456 | 0.521629 |
| OGG1 | 3.74950503 | 3.343747 |
| OGN | 0 | 0 |
| OGT | 46.4338305 | 42.02886 |
| OIP5 | 0.81651771 | 0.830954 |
| OIT3 | 0.01781053 | 0.040466 |
| OLA1 | 0.75297329 | 0.55381 |
| OLAH | 0.03439258 | 0 |
| OLFM1 | 0 | 0 |
| OLFM2 | 14.551653 | 21.62623 |
| OLFM3 | 0 | 0 |
| OLFM4 | 0.00745844 | 0.033892 |
| OLFML1 | 0.12431829 | 0.07944 |
| OLFML2A | 0 | 0.007302 |
| OLFML2B | 0.00665359 | 0.007559 |
| OLFML3 | 0.04636236 | 0.039501 |
| OLIG1 | 12.0939578 | 5.865934 |
| OLIG2 | 6.75210588 | 2.236829 |
| OLIG3 | 0 | 0 |

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|----------|------------|----------|
| OLR1 | 48.5187089 | 65.66506 |
| OMA1 | 4.22929654 | 3.603411 |
| OMD | 0 | 0 |
| OMG | 0 | 0 |
| OMP | 0 | 0 |
| ONECUT1 | 0 | 0 |
| ONECUT2 | 0.00391242 | 0.001482 |
| ONECUT3 | 0.02831694 | 0.016084 |
| OOEP | 0.03096514 | 0.070354 |
| OPA1 | 8.92765753 | 8.050181 |
| OPA3 | 1.00240331 | 1.0852 |
| OPALIN | 0 | 0 |
| OPCML | 0.00642485 | 0 |
| OPHN1 | 0.03350205 | 0.012686 |
| OPHN1P1 | 0 | 0 |
| OPLAH | 2.26563806 | 3.342366 |
| OPN1LW | 0 | 0 |
| OPN1MW | 0 | 0 |
| OPN1MW2 | 0.0171916 | 0.01953 |
| OPN1SW | 0.26808254 | 0.261039 |
| OPN3 | 1.0065318 | 1.098062 |
| OPN4 | 0 | 0 |
| OPN5 | 0 | 0 |
| OPRD1 | 0.01185193 | 0.013464 |
| OPRK1 | 0.00423983 | 0 |
| OPRL1 | 9.52055028 | 15.02508 |
| OPRM1 | 0.00638195 | 0.003625 |
| OPTC | 0 | 0 |
| OPTN | 0.11690481 | 0.185928 |
| OR10A2 | 0 | 0 |
| OR10A3 | 0.02224903 | 0 |
| OR10A4 | 0 | 0.050391 |
| OR10A5 | 0 | 0 |
| OR10A6 | 0 | 0 |
| OR10A7 | 0 | 0 |
| OR10AA1P | 0 | 0 |
| OR10AB1P | 0 | 0 |
| OR10AC1P | 0 | 0 |
| OR10AD1 | 0 | 0.025037 |
| OR10AE1P | 0 | 0 |
| OR10AE3P | 0 | 0 |
| OR10AF1P | 0 | 0 |
| OR10AG1 | 0.02320677 | 0 |
| OR10AH1P | 0 | 0 |
| OR10AK1P | 0 | 0 |
| OR10B1P | 0 | 0 |
| OR10C1 | 0 | 0 |

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|---------|------------|----------|
| OR10D1P | 0 | 0 |
| OR10D3P | 0 | 0 |
| OR10D4P | 0 | 0 |
| OR10D5P | 0 | 0 |
| OR10G1P | 0 | 0 |
| OR10G2 | 0 | 0 |
| OR10G3 | 0 | 0 |
| OR10G4 | 0 | 0 |
| OR10G5P | 0 | 0 |
| OR10G6 | 0 | 0 |
| OR10G7 | 0 | 0 |
| OR10G8 | 0 | 0 |
| OR10G9 | 0 | 0 |
| OR10H1 | 0 | 0 |
| OR10H2 | 0.02043278 | 0.023212 |
| OR10H3 | 0 | 0 |
| OR10H4 | 0 | 0 |
| OR10H5 | 0 | 0 |
| OR10J1 | 0 | 0 |
| OR10J2P | 0 | 0 |
| OR10J3 | 0 | 0 |
| OR10J4 | 0 | 0 |
| OR10J5 | 0 | 0 |
| OR10J6P | 0 | 0 |
| OR10J7P | 0 | 0 |
| OR10J8P | 0 | 0 |
| OR10J9P | 0 | 0 |
| OR10K1 | 0 | 0 |
| OR10K2 | 0 | 0 |
| OR10N1P | 0 | 0 |
| OR10P1 | 0.02231988 | 0 |
| OR10Q1 | 0 | 0 |
| OR10Q2P | 0 | 0 |
| OR10R1P | 0 | 0 |
| OR10R2 | 0 | 0 |
| OR10R3P | 0 | 0 |
| OR10S1 | 0 | 0 |
| OR10T1P | 0 | 0 |
| OR10T2 | 0 | 0 |
| OR10U1P | 0 | 0 |
| OR10V1 | 0 | 0 |
| OR10V2P | 0 | 0 |
| OR10V3P | 0 | 0 |
| OR10V7P | 0 | 0 |
| OR10W1 | 0 | 0 |
| OR10X1 | 0 | 0 |
| OR10Y1P | 0 | 0 |

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|----------|------------|----------|
| OR10Z1 | 0 | 0 |
| OR11A1 | 0 | 0 |
| OR11G1P | 0 | 0 |
| OR11G2 | 0 | 0 |
| OR11H1 | 0 | 0 |
| OR11H12 | 0 | 0 |
| OR11H13P | 0 | 0 |
| OR11H2 | 0 | 0 |
| OR11H3P | 0 | 0 |
| OR11H4 | 0 | 0 |
| OR11H5P | 0 | 0 |
| OR11H6 | 0 | 0 |
| OR11H7 | 0 | 0 |
| OR11H8P | 0 | 0 |
| OR11I1P | 0 | 0 |
| OR11J1P | 0 | 0 |
| OR11J2P | 0 | 0 |
| OR11J5P | 0 | 0 |
| OR11K1P | 0 | 0 |
| OR11K2P | 0 | 0 |
| OR11L1 | 0 | 0 |
| OR11M1P | 0 | 0 |
| OR11N1P | 0 | 0 |
| OR11P1P | 0 | 0 |
| OR11Q1P | 0 | 0 |
| OR12D1P | 0 | 0 |
| OR12D2 | 0 | 0.023122 |
| OR12D3 | 0 | 0 |
| OR13A1 | 0.04047224 | 0.126437 |
| OR13C1P | 0 | 0 |
| OR13C2 | 0 | 0 |
| OR13C3 | 0 | 0 |
| OR13C4 | 0 | 0.024958 |
| OR13C5 | 0 | 0 |
| OR13C6P | 0 | 0 |
| OR13C7P | 0 | 0 |
| OR13C8 | 0 | 0 |
| OR13C9 | 0 | 0 |
| OR13D1 | 0 | 0 |
| OR13D2P | 0 | 0 |
| OR13D3P | 0 | 0 |
| OR13E1P | 0 | 0 |
| OR13F1 | 0 | 0 |
| OR13G1 | 0 | 0 |
| OR13H1 | 0.02268105 | 0.025766 |
| OR13I1P | 0 | 0 |
| OR13J1 | 0 | 0 |

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|---------|------------|----------|
| OR13K1P | 0 | 0 |
| OR13Z1P | 0 | 0 |
| OR13Z2P | 0 | 0 |
| OR13Z3P | 0 | 0 |
| OR14A16 | 0 | 0 |
| OR14A2 | 0 | 0 |
| OR14C36 | 0 | 0 |
| OR14I1 | 0 | 0 |
| OR14J1 | 0 | 0 |
| OR14K1 | 0 | 0 |
| OR14L1P | 0 | 0 |
| OR1A1 | 0 | 0 |
| OR1A2 | 0 | 0 |
| OR1AA1P | 0 | 0 |
| OR1AB1P | 0 | 0 |
| OR1AC1P | 0 | 0 |
| OR1B1 | 0.02197004 | 0.024958 |
| OR1C1 | 0 | 0 |
| OR1D2 | 0.02239119 | 0 |
| OR1D3P | 0 | 0 |
| OR1D4 | 0 | 0 |
| OR1D5 | 0 | 0.025437 |
| OR1E1 | 0 | 0 |
| OR1E2 | 0 | 0.024573 |
| OR1E3 | 0 | 0 |
| OR1F1 | 0 | 0 |
| OR1F12 | 0 | 0 |
| OR1F2P | 0 | 0 |
| OR1G1 | 0.02231988 | 0 |
| OR1H1P | 0 | 0 |
| OR1I1 | 0 | 0 |
| OR1J1 | 0 | 0 |
| OR1J2 | 0 | 0 |
| OR1J4 | 0 | 0 |
| OR1K1 | 0.02210866 | 0.050232 |
| OR1L1 | 0 | 0 |
| OR1L3 | 0 | 0 |
| OR1L4 | 0 | 0 |
| OR1L6 | 0 | 0 |
| OR1L8 | 0.02260788 | 0 |
| OR1M1 | 0 | 0 |
| OR1M4P | 0 | 0 |
| OR1N1 | 0 | 0.025518 |
| OR1N2 | 0 | 0 |
| OR1P1 | 0 | 0 |
| OR1Q1 | 0 | 0 |
| OR1R1P | 0 | 0 |

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|---------|------------|----------|
| OR1S1 | 0 | 0 |
| OR1S2 | 0 | 0 |
| OR1X1P | 0 | 0 |
| OR1X5P | 0 | 0 |
| OR2A1 | 0 | 0.102401 |
| OR2A12 | 0 | 0 |
| OR2A13P | 0 | 0 |
| OR2A14 | 0 | 0 |
| OR2A15P | 0 | 0 |
| OR2A2 | 0 | 0 |
| OR2A20P | 0 | 0 |
| OR2A25 | 0 | 0.0256 |
| OR2A3P | 0 | 0 |
| OR2A4 | 0 | 0 |
| OR2A41P | 0 | 0 |
| OR2A42 | 0.0229785 | 0.078312 |
| OR2A5 | 0 | 0 |
| OR2A7 | 0 | 0 |
| OR2A9P | 0 | 0 |
| OR2AD1P | 0 | 0 |
| OR2AE1 | 0 | 0.024573 |
| OR2AF1P | 0 | 0 |
| OR2AG1 | 0 | 0 |
| OR2AG2 | 0.04421731 | 0 |
| OR2AH1P | 0 | 0 |
| OR2AI1P | 0 | 0 |
| OR2AJ1 | 0 | 0 |
| OR2AK2 | 0 | 0 |
| OR2AL1P | 0 | 0 |
| OR2AM1P | 0 | 0 |
| OR2AO1P | 0 | 0 |
| OR2AP1 | 0 | 0 |
| OR2AQ1P | 0 | 0 |
| OR2AS1P | 0 | 0 |
| OR2AS2P | 0 | 0 |
| OR2AT1P | 0 | 0 |
| OR2AT2P | 0 | 0 |
| OR2AT4 | 0 | 0 |
| OR2B11 | 0 | 0 |
| OR2B2 | 0 | 0 |
| OR2B3 | 0 | 0 |
| OR2B4P | 0 | 0 |
| OR2B6 | 0 | 0.025356 |
| OR2B7P | 0 | 0 |
| OR2B8P | 0 | 0 |
| OR2BH1P | 0 | 0 |
| OR2C1 | 0.02029472 | 0 |

| | | |
|--------|------------|----------|
| OR2C3 | 0.00766788 | 0.008711 |
| OR2D2 | 0 | 0 |
| OR2D3 | 0 | 0 |
| OR2E1P | 0 | 0 |
| OR2F1 | 0 | 0 |
| OR2F2 | 0.02203913 | 0 |
| OR2G1P | 0 | 0 |
| OR2G2 | 0 | 0 |
| OR2G3 | 0 | 0 |
| OR2G6 | 0 | 0 |
| OR2H1 | 0.0140356 | 0.015945 |
| OR2H2 | 0 | 0 |
| OR2H4P | 0 | 0 |
| OR2H5P | 0 | 0 |
| OR2I1P | 0 | 0 |
| OR2J1 | 0 | 0 |
| OR2J2 | 0 | 0 |
| OR2J3 | 0 | 0 |
| OR2J4P | 0 | 0 |
| OR2K2 | 0.04421731 | 0.050232 |
| OR2L13 | 0 | 0 |
| OR2L1P | 0 | 0 |
| OR2L2 | 0 | 0 |
| OR2L3 | 0 | 0 |
| OR2L5 | 0 | 0 |
| OR2L6P | 0 | 0 |
| OR2L8 | 0 | 0 |
| OR2L9P | 0 | 0 |
| OR2M1P | 0 | 0 |
| OR2M2 | 0 | 0 |
| OR2M3 | 0 | 0.025437 |
| OR2M4 | 0 | 0 |
| OR2M5 | 0 | 0 |
| OR2M7 | 0 | 0 |
| OR2N1P | 0 | 0 |
| OR2P1P | 0 | 0 |
| OR2Q1P | 0 | 0 |
| OR2R1P | 0 | 0 |
| OR2S1P | 0 | 0 |
| OR2S2 | 0 | 0 |
| OR2T1 | 0 | 0 |
| OR2T10 | 0 | 0 |
| OR2T11 | 0 | 0 |
| OR2T12 | 0 | 0 |
| OR2T2 | 0 | 0 |
| OR2T27 | 0 | 0 |
| OR2T29 | 0 | 0 |

| | | |
|---------|---|----------|
| OR2T3 | 0 | 0.049917 |
| OR2T32P | 0 | 0 |
| OR2T33 | 0 | 0 |
| OR2T34 | 0 | 0 |
| OR2T35 | 0 | 0 |
| OR2T4 | 0 | 0 |
| OR2T5 | 0 | 0 |
| OR2T6 | 0 | 0 |
| OR2T7 | 0 | 0 |
| OR2T8 | 0 | 0 |
| OR2U1P | 0 | 0 |
| OR2U2P | 0 | 0 |
| OR2V1 | 0 | 0 |
| OR2V2 | 0 | 0 |
| OR2W1 | 0 | 0 |
| OR2W2P | 0 | 0 |
| OR2W3 | 0 | 0 |
| OR2W4P | 0 | 0 |
| OR2W5 | 0 | 0 |
| OR2W6P | 0 | 0 |
| OR2X1P | 0 | 0 |
| OR2Y1 | 0 | 0 |
| OR2Z1 | 0 | 0.025275 |
| OR3A1 | 0 | 0 |
| OR3A2 | 0 | 0 |
| OR3A3 | 0 | 0 |
| OR3A4 | 0 | 0 |
| OR3B1P | 0 | 0 |
| OR3D1P | 0 | 0 |
| OR4A10P | 0 | 0 |
| OR4A11P | 0 | 0 |
| OR4A12P | 0 | 0 |
| OR4A13P | 0 | 0 |
| OR4A14P | 0 | 0 |
| OR4A15 | 0 | 0 |
| OR4A16 | 0 | 0 |
| OR4A17P | 0 | 0 |
| OR4A18P | 0 | 0 |
| OR4A19P | 0 | 0 |
| OR4A1P | 0 | 0 |
| OR4A21P | 0 | 0 |
| OR4A2P | 0 | 0 |
| OR4A3P | 0 | 0 |
| OR4A40P | 0 | 0 |
| OR4A41P | 0 | 0 |
| OR4A42P | 0 | 0 |
| OR4A43P | 0 | 0 |

| | | |
|---------|------------|----------|
| OR4A44P | 0 | 0 |
| OR4A45P | 0 | 0 |
| OR4A46P | 0 | 0 |
| OR4A47 | 0 | 0 |
| OR4A48P | 0 | 0 |
| OR4A49P | 0 | 0 |
| OR4A4P | 0 | 0 |
| OR4A5 | 0 | 0 |
| OR4A50P | 0 | 0 |
| OR4A6P | 0 | 0 |
| OR4A7P | 0 | 0 |
| OR4A8P | 0 | 0 |
| OR4A9P | 0 | 0 |
| OR4B1 | 0 | 0 |
| OR4B2P | 0 | 0 |
| OR4C10P | 0 | 0 |
| OR4C11 | 0 | 0 |
| OR4C12 | 0 | 0 |
| OR4C13 | 0 | 0 |
| OR4C14P | 0 | 0 |
| OR4C15 | 0 | 0 |
| OR4C16 | 0 | 0 |
| OR4C17P | 0 | 0 |
| OR4C1P | 0 | 0 |
| OR4C2P | 0 | 0 |
| OR4C3 | 0 | 0 |
| OR4C45 | 0 | 0 |
| OR4C46 | 0 | 0 |
| OR4C4P | 0 | 0 |
| OR4C5 | 0 | 0 |
| OR4C50P | 0 | 0 |
| OR4C6 | 0 | 0 |
| OR4C7P | 0 | 0 |
| OR4C9P | 0 | 0 |
| OR4D1 | 0 | 0 |
| OR4D10 | 0.02246296 | 0 |
| OR4D11 | 0 | 0.025518 |
| OR4D12P | 0 | 0 |
| OR4D2 | 0 | 0 |
| OR4D5 | 0 | 0 |
| OR4D6 | 0.02224903 | 0 |
| OR4D7P | 0 | 0 |
| OR4D8P | 0 | 0 |
| OR4D9 | 0 | 0 |
| OR4E1 | 0 | 0 |
| OR4E2 | 0 | 0 |
| OR4F13P | 0 | 0 |

| | | |
|---------|------------|----------|
| OR4F14P | 0 | 0 |
| OR4F15 | 0 | 0 |
| OR4F16 | 0 | 0 |
| OR4F17 | 0 | 0 |
| OR4F1P | 0 | 0 |
| OR4F21 | 0 | 0 |
| OR4F28P | 0 | 0 |
| OR4F29 | 0 | 0 |
| OR4F2P | 0 | 0 |
| OR4F3 | 0 | 0 |
| OR4F4 | 0 | 0 |
| OR4F5 | 0 | 0 |
| OR4F6 | 0 | 0 |
| OR4F7P | 0 | 0 |
| OR4F8P | 0 | 0 |
| OR4G11P | 0 | 0 |
| OR4G1P | 0 | 0 |
| OR4G2P | 0 | 0 |
| OR4G3P | 0 | 0 |
| OR4G4P | 0 | 0 |
| OR4G6P | 0 | 0 |
| OR4H12P | 0 | 0 |
| OR4H6P | 0 | 0 |
| OR4H8P | 0 | 0 |
| OR4K1 | 0 | 0.025518 |
| OR4K11P | 0 | 0 |
| OR4K12P | 0 | 0 |
| OR4K13 | 0 | 0 |
| OR4K14 | 0 | 0.0256 |
| OR4K15 | 0.0200815 | 0 |
| OR4K16P | 0 | 0 |
| OR4K17 | 0 | 0 |
| OR4K2 | 0.02224903 | 0 |
| OR4K3 | 0 | 0 |
| OR4K4P | 0 | 0 |
| OR4K5 | 0 | 0 |
| OR4K6P | 0 | 0 |
| OR4K7P | 0 | 0 |
| OR4K8P | 0 | 0 |
| OR4L1 | 0.02239119 | 0 |
| OR4M1 | 0 | 0.025356 |
| OR4M2 | 0 | 0 |
| OR4N1P | 0 | 0 |
| OR4N2 | 0 | 0 |
| OR4N3P | 0 | 0 |
| OR4N4 | 0 | 0 |
| OR4N5 | 0 | 0.025766 |

| | | |
|----------|------------|----------|
| OR4P1P | 0 | 0 |
| OR4P4 | 0 | 0 |
| OR4Q1P | 0 | 0 |
| OR4Q2 | 0 | 0 |
| OR4Q3 | 0 | 0 |
| OR4R1P | 0 | 0 |
| OR4R2P | 0 | 0 |
| OR4R3P | 0 | 0 |
| OR4S1 | 0 | 0 |
| OR4S2 | 0 | 0.025518 |
| OR4T1P | 0 | 0 |
| OR4U1P | 0 | 0 |
| OR4V1P | 0 | 0 |
| OR4W1P | 0 | 0 |
| OR4X1 | 0 | 0 |
| OR4X2 | 0 | 0 |
| OR4X7P | 0 | 0 |
| OR51A10P | 0 | 0 |
| OR51A1P | 0 | 0 |
| OR51A2 | 0 | 0 |
| OR51A3P | 0 | 0 |
| OR51A4 | 0 | 0 |
| OR51A5P | 0 | 0 |
| OR51A6P | 0 | 0 |
| OR51A7 | 0 | 0 |
| OR51A8P | 0 | 0 |
| OR51A9P | 0 | 0 |
| OR51AB1P | 0 | 0 |
| OR51B2 | 0 | 0 |
| OR51B3P | 0 | 0 |
| OR51B4 | 0 | 0 |
| OR51B5 | 0 | 0 |
| OR51B6 | 0 | 0 |
| OR51B8P | 0 | 0 |
| OR51C1P | 0 | 0 |
| OR51C4P | 0 | 0 |
| OR51D1 | 0 | 0 |
| OR51E1 | 0.00676926 | 0 |
| OR51E2 | 0.00754949 | 0 |
| OR51F1 | 0 | 0 |
| OR51F2 | 0 | 0 |
| OR51F3P | 0 | 0 |
| OR51F4P | 0 | 0 |
| OR51F5P | 0 | 0 |
| OR51G1 | 0 | 0 |
| OR51G2 | 0 | 0 |
| OR51H1P | 0 | 0 |

| | | |
|---------|------------|----------|
| OR51H2P | 0 | 0 |
| OR51I1 | 0.02224903 | 0 |
| OR51I2 | 0 | 0 |
| OR51J1 | 0 | 0 |
| OR51K1P | 0 | 0 |
| OR51L1 | 0 | 0.025195 |
| OR51M1 | 0 | 0 |
| OR51N1P | 0 | 0 |
| OR51P1P | 0 | 0 |
| OR51Q1 | 0 | 0 |
| OR51R1P | 0 | 0 |
| OR51S1 | 0 | 0 |
| OR51T1 | 0 | 0 |
| OR51V1 | 0 | 0 |
| OR52A1 | 0 | 0 |
| OR52A4 | 0 | 0 |
| OR52A5 | 0 | 0 |
| OR52B1P | 0 | 0 |
| OR52B2 | 0 | 0 |
| OR52B3P | 0 | 0 |
| OR52B4 | 0.08899611 | 0.075826 |
| OR52B5P | 0 | 0 |
| OR52B6 | 0.04171693 | 0 |
| OR52D1 | 0 | 0 |
| OR52E1 | 0 | 0 |
| OR52E2 | 0 | 0 |
| OR52E3P | 0 | 0 |
| OR52E4 | 0 | 0 |
| OR52E5 | 0 | 0 |
| OR52E6 | 0 | 0 |
| OR52E7P | 0 | 0 |
| OR52E8 | 0 | 0 |
| OR52H1 | 0 | 0 |
| OR52H2P | 0 | 0 |
| OR52I1 | 0 | 0 |
| OR52I2 | 0 | 0 |
| OR52J1P | 0 | 0 |
| OR52J2P | 0 | 0 |
| OR52J3 | 0 | 0 |
| OR52K1 | 0.53397666 | 0.353853 |
| OR52K2 | 0.11124514 | 0.151651 |
| OR52K3P | 0 | 0 |
| OR52L1 | 0 | 0 |
| OR52L2P | 0 | 0 |
| OR52M1 | 0 | 0 |
| OR52M2P | 0 | 0 |
| OR52N1 | 0 | 0 |

| | | |
|---------|------------|----------|
| OR52N2 | 0.04353071 | 0.049452 |
| OR52N3P | 0 | 0 |
| OR52N4 | 0.0405503 | 0.023033 |
| OR52N5 | 0 | 0 |
| OR52P1P | 0 | 0 |
| OR52P2P | 0 | 0 |
| OR52Q1P | 0 | 0 |
| OR52R1 | 0.0177429 | 0 |
| OR52S1P | 0 | 0 |
| OR52T1P | 0 | 0 |
| OR52U1P | 0 | 0 |
| OR52V1P | 0 | 0 |
| OR52W1 | 0 | 0 |
| OR52X1P | 0 | 0 |
| OR52Y1P | 0 | 0 |
| OR52Z1 | 0 | 0 |
| OR55B1P | 0 | 0 |
| OR56A1 | 0 | 0 |
| OR56A3 | 0 | 0 |
| OR56A4 | 0 | 0 |
| OR56A5 | 0 | 0 |
| OR56A7P | 0 | 0 |
| OR56B1 | 0 | 0 |
| OR56B2P | 0 | 0 |
| OR56B3P | 0 | 0 |
| OR56B4 | 0 | 0 |
| OR5A1 | 0.06653586 | 0.050391 |
| OR5A2 | 0 | 0 |
| OR5AC1 | 0 | 0 |
| OR5AC2 | 0 | 0 |
| OR5AC4P | 0 | 0 |
| OR5AH1P | 0 | 0 |
| OR5AK1P | 0 | 0 |
| OR5AK2 | 0 | 0 |
| OR5AK3P | 0 | 0 |
| OR5AK4P | 0 | 0 |
| OR5AL1 | 0 | 0 |
| OR5AL2P | 0 | 0 |
| OR5AM1P | 0 | 0 |
| OR5AN1 | 0 | 0 |
| OR5AN2P | 0 | 0 |
| OR5AO1P | 0 | 0 |
| OR5AP1P | 0 | 0 |
| OR5AP2 | 0 | 0.025116 |
| OR5AQ1P | 0 | 0 |
| OR5AR1 | 0 | 0 |
| OR5AS1 | 0 | 0 |

| | | |
|---------|------------|----------|
| OR5AU1 | 0 | 0 |
| OR5AW1P | 0 | 0 |
| OR5AZ1P | 0 | 0 |
| OR5B10P | 0 | 0 |
| OR5B12 | 0 | 0 |
| OR5B15P | 0 | 0 |
| OR5B17 | 0.02224903 | 0 |
| OR5B19P | 0 | 0 |
| OR5B1P | 0 | 0 |
| OR5B2 | 0.02260788 | 0 |
| OR5B21 | 0.09043153 | 0.051366 |
| OR5B3 | 0 | 0 |
| OR5BA1P | 0 | 0 |
| OR5BB1P | 0 | 0 |
| OR5BC1P | 0 | 0 |
| OR5BD1P | 0 | 0 |
| OR5BE1P | 0 | 0 |
| OR5BH1P | 0 | 0 |
| OR5BJ1P | 0 | 0 |
| OR5BK1P | 0 | 0 |
| OR5BL1P | 0 | 0 |
| OR5BM1P | 0 | 0 |
| OR5BN1P | 0 | 0 |
| OR5BN2P | 0 | 0 |
| OR5BP1P | 0 | 0 |
| OR5BQ1P | 0 | 0 |
| OR5BR1P | 0 | 0 |
| OR5BS1P | 0 | 0 |
| OR5BT1P | 0 | 0 |
| OR5C1 | 0.02183316 | 0 |
| OR5D13 | 0 | 0 |
| OR5D14 | 0 | 0 |
| OR5D15P | 0 | 0 |
| OR5D16 | 0 | 0 |
| OR5D17P | 0 | 0 |
| OR5D18 | 0 | 0 |
| OR5D2P | 0 | 0 |
| OR5D3P | 0 | 0 |
| OR5E1P | 0 | 0 |
| OR5F1 | 0 | 0 |
| OR5F2P | 0 | 0 |
| OR5G1P | 0 | 0 |
| OR5G3 | 0 | 0 |
| OR5G4P | 0 | 0 |
| OR5G5P | 0 | 0 |
| OR5H1 | 0 | 0 |
| OR5H14 | 0 | 0 |

| | | |
|---------|------------|----------|
| OR5H15 | 0 | 0 |
| OR5H2 | 0 | 0 |
| OR5H3P | 0 | 0 |
| OR5H4P | 0 | 0 |
| OR5H5P | 0 | 0 |
| OR5H6 | 0 | 0 |
| OR5H7P | 0 | 0 |
| OR5H8P | 0 | 0 |
| OR5I1 | 0 | 0 |
| OR5J1P | 0 | 0 |
| OR5J2 | 0 | 0 |
| OR5J7P | 0 | 0 |
| OR5K1 | 0 | 0.025089 |
| OR5K2 | 0.15476059 | 0.075347 |
| OR5K3 | 0 | 0 |
| OR5K4 | 0 | 0 |
| OR5L1 | 0 | 0 |
| OR5L2 | 0 | 0 |
| OR5M1 | 0 | 0 |
| OR5M10 | 0 | 0 |
| OR5M11 | 0 | 0 |
| OR5M12P | 0 | 0 |
| OR5M13P | 0 | 0 |
| OR5M14P | 0 | 0 |
| OR5M2P | 0 | 0 |
| OR5M3 | 0 | 0 |
| OR5M4P | 0 | 0 |
| OR5M5P | 0 | 0 |
| OR5M6P | 0 | 0 |
| OR5M7P | 0 | 0 |
| OR5M8 | 0 | 0 |
| OR5M9 | 0 | 0 |
| OR5P1P | 0 | 0 |
| OR5P2 | 0.02169797 | 0 |
| OR5P3 | 0 | 0 |
| OR5P4P | 0 | 0 |
| OR5R1 | 0 | 0 |
| OR5S1P | 0 | 0 |
| OR5T1 | 0 | 0 |
| OR5T2 | 0 | 0 |
| OR5T3 | 0 | 0 |
| OR5V1 | 0 | 0 |
| OR5W1P | 0 | 0 |
| OR5W2 | 0 | 0 |
| OR6A2 | 0 | 0 |
| OR6B1 | 0 | 0 |
| OR6B2 | 0 | 0 |

| | | |
|---------|------------|----------|
| OR6B3 | 0 | 0 |
| OR6C1 | 0 | 0 |
| OR6C2 | 0 | 0 |
| OR6C3 | 0 | 0 |
| OR6C4 | 0 | 0 |
| OR6C5P | 0 | 0 |
| OR6C6 | 0 | 0 |
| OR6C64P | 0 | 0 |
| OR6C65 | 0 | 0 |
| OR6C66P | 0 | 0 |
| OR6C68 | 0.02203913 | 0 |
| OR6C69P | 0 | 0 |
| OR6C70 | 0 | 0 |
| OR6C71P | 0 | 0 |
| OR6C72P | 0 | 0 |
| OR6C73P | 0 | 0 |
| OR6C74 | 0 | 0 |
| OR6C75 | 0 | 0 |
| OR6C76 | 0 | 0 |
| OR6C7P | 0 | 0 |
| OR6D1P | 0 | 0 |
| OR6E1P | 0 | 0 |
| OR6F1 | 0 | 0 |
| OR6J1 | 0 | 0 |
| OR6K1P | 0 | 0 |
| OR6K2 | 0 | 0 |
| OR6K3 | 0.04221954 | 0.023981 |
| OR6K4P | 0 | 0 |
| OR6K5P | 0 | 0 |
| OR6K6 | 0 | 0 |
| OR6L1P | 0 | 0 |
| OR6L2P | 0 | 0 |
| OR6M1 | 0 | 0 |
| OR6M2P | 0 | 0 |
| OR6M3P | 0 | 0 |
| OR6N1 | 0 | 0 |
| OR6N2 | 0.02203913 | 0 |
| OR6P1 | 0 | 0 |
| OR6Q1 | 0 | 0 |
| OR6R1P | 0 | 0 |
| OR6R2P | 0 | 0 |
| OR6S1 | 0.02110977 | 0 |
| OR6T1 | 0 | 0.024573 |
| OR6U2P | 0 | 0 |
| OR6V1 | 0 | 0 |
| OR6W1P | 0 | 0 |
| OR6X1 | 0 | 0 |

| | | |
|----------|---|----------|
| OR6Y1 | 0 | 0 |
| OR7A10 | 0 | 0 |
| OR7A11P | 0 | 0 |
| OR7A15P | 0 | 0 |
| OR7A17 | 0 | 0 |
| OR7A18P | 0 | 0 |
| OR7A19P | 0 | 0 |
| OR7A1P | 0 | 0 |
| OR7A2P | 0 | 0 |
| OR7A3P | 0 | 0 |
| OR7A5 | 0 | 0 |
| OR7A8P | 0 | 0 |
| OR7C1 | 0 | 0 |
| OR7C2 | 0 | 0 |
| OR7D11P | 0 | 0 |
| OR7D1P | 0 | 0 |
| OR7D2 | 0 | 0.007409 |
| OR7D4 | 0 | 0 |
| OR7E100P | 0 | 0 |
| OR7E101P | 0 | 0 |
| OR7E102P | 0 | 0 |
| OR7E104P | 0 | 0 |
| OR7E105P | 0 | 0 |
| OR7E106P | 0 | 0 |
| OR7E108P | 0 | 0 |
| OR7E109P | 0 | 0 |
| OR7E10P | 0 | 0 |
| OR7E110P | 0 | 0 |
| OR7E111P | 0 | 0 |
| OR7E115P | 0 | 0 |
| OR7E116P | 0 | 0 |
| OR7E117P | 0 | 0 |
| OR7E11P | 0 | 0 |
| OR7E121P | 0 | 0 |
| OR7E122P | 0 | 0 |
| OR7E125P | 0 | 0 |
| OR7E126P | 0 | 0 |
| OR7E128P | 0 | 0 |
| OR7E129P | 0 | 0 |
| OR7E12P | 0 | 0 |
| OR7E130P | 0 | 0 |
| OR7E136P | 0 | 0 |
| OR7E13P | 0 | 0 |
| OR7E140P | 0 | 0 |
| OR7E145P | 0 | 0 |
| OR7E148P | 0 | 0 |
| OR7E149P | 0 | 0 |

| | | |
|----------|---|---|
| OR7E14P | 0 | 0 |
| OR7E154P | 0 | 0 |
| OR7E155P | 0 | 0 |
| OR7E156P | 0 | 0 |
| OR7E157P | 0 | 0 |
| OR7E158P | 0 | 0 |
| OR7E159P | 0 | 0 |
| OR7E15P | 0 | 0 |
| OR7E160P | 0 | 0 |
| OR7E161P | 0 | 0 |
| OR7E162P | 0 | 0 |
| OR7E16P | 0 | 0 |
| OR7E18P | 0 | 0 |
| OR7E19P | 0 | 0 |
| OR7E1P | 0 | 0 |
| OR7E21P | 0 | 0 |
| OR7E22P | 0 | 0 |
| OR7E23P | 0 | 0 |
| OR7E24 | 0 | 0 |
| OR7E25P | 0 | 0 |
| OR7E26P | 0 | 0 |
| OR7E28P | 0 | 0 |
| OR7E29P | 0 | 0 |
| OR7E2P | 0 | 0 |
| OR7E31P | 0 | 0 |
| OR7E33P | 0 | 0 |
| OR7E35P | 0 | 0 |
| OR7E36P | 0 | 0 |
| OR7E37P | 0 | 0 |
| OR7E38P | 0 | 0 |
| OR7E39P | 0 | 0 |
| OR7E41P | 0 | 0 |
| OR7E43P | 0 | 0 |
| OR7E46P | 0 | 0 |
| OR7E47P | 0 | 0 |
| OR7E4P | 0 | 0 |
| OR7E53P | 0 | 0 |
| OR7E55P | 0 | 0 |
| OR7E59P | 0 | 0 |
| OR7E5P | 0 | 0 |
| OR7E62P | 0 | 0 |
| OR7E66P | 0 | 0 |
| OR7E7P | 0 | 0 |
| OR7E83P | 0 | 0 |
| OR7E84P | 0 | 0 |
| OR7E85P | 0 | 0 |
| OR7E86P | 0 | 0 |

| | | |
|---------|---|----------|
| OR7E87P | 0 | 0 |
| OR7E89P | 0 | 0 |
| OR7E8P | 0 | 0 |
| OR7E90P | 0 | 0 |
| OR7E91P | 0 | 0 |
| OR7E93P | 0 | 0 |
| OR7E94P | 0 | 0 |
| OR7E96P | 0 | 0 |
| OR7E97P | 0 | 0 |
| OR7E99P | 0 | 0 |
| OR7G1 | 0 | 0 |
| OR7G15P | 0 | 0 |
| OR7G2 | 0 | 0 |
| OR7G3 | 0 | 0 |
| OR7H1P | 0 | 0 |
| OR7H2P | 0 | 0 |
| OR7K1P | 0 | 0 |
| OR7L1P | 0 | 0 |
| OR7M1P | 0 | 0 |
| OR8A1 | 0 | 0 |
| OR8A2P | 0 | 0 |
| OR8A3P | 0 | 0 |
| OR8B10P | 0 | 0 |
| OR8B12 | 0 | 0 |
| OR8B1P | 0 | 0 |
| OR8B2 | 0 | 0 |
| OR8B3 | 0 | 0.025356 |
| OR8B4 | 0 | 0 |
| OR8B5P | 0 | 0 |
| OR8B6P | 0 | 0 |
| OR8B7P | 0 | 0 |
| OR8B8 | 0 | 0 |
| OR8B9P | 0 | 0 |
| OR8C1P | 0 | 0 |
| OR8D1 | 0 | 0 |
| OR8D2 | 0 | 0 |
| OR8D4 | 0 | 0 |
| OR8F1P | 0 | 0 |
| OR8G1 | 0 | 0 |
| OR8G2 | 0 | 0 |
| OR8G3P | 0 | 0 |
| OR8G5 | 0 | 0 |
| OR8G7P | 0 | 0 |
| OR8H1 | 0 | 0 |
| OR8H2 | 0 | 0 |
| OR8H3 | 0 | 0 |
| OR8I1P | 0 | 0 |

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| OR8I2 | 0 | 0 |
| OR8I4P | 0 | 0 |
| OR8J1 | 0 | 0 |
| OR8J2 | 0 | 0 |
| OR8J3 | 0.02217862 | 0 |
| OR8K1 | 0 | 0 |
| OR8K2P | 0 | 0 |
| OR8K3 | 0 | 0 |
| OR8K4P | 0 | 0 |
| OR8K5 | 0 | 0.02585 |
| OR8L1P | 0 | 0 |
| OR8Q1P | 0 | 0 |
| OR8R1P | 0 | 0 |
| OR8S1 | 0 | 0 |
| OR8S21P | 0 | 0 |
| OR8T1P | 0 | 0 |
| OR8U1 | 0 | 0 |
| OR8V1P | 0 | 0 |
| OR8X1P | 0 | 0 |
| OR9A1P | 0 | 0 |
| OR9A2 | 0 | 0 |
| OR9A3P | 0 | 0 |
| OR9A4 | 0 | 0 |
| OR9G1 | 0.02290341 | 0 |
| OR9G2P | 0 | 0 |
| OR9G3P | 0 | 0 |
| OR9G4 | 0 | 0 |
| OR9G9 | 0 | 0 |
| OR9H1P | 0 | 0 |
| OR9I1 | 0 | 0 |
| OR9I2P | 0 | 0 |
| OR9I3P | 0 | 0 |
| OR9K1P | 0 | 0 |
| OR9K2 | 0 | 0.023696 |
| OR9L1P | 0 | 0 |
| OR9M1P | 0 | 0 |
| OR9N1P | 0 | 0 |
| OR9P1P | 0 | 0 |
| OR9Q1 | 0 | 0.011073 |
| OR9Q2 | 0 | 0 |
| OR9R1P | 0 | 0 |
| OR9S24P | 0 | 0 |
| ORAI1 | 13.5624628 | 13.84251 |
| ORAI2 | 65.6590101 | 76.8165 |
| ORAI3 | 24.9651782 | 31.85409 |
| ORAOV1 | 9.29838608 | 10.18519 |
| ORC1L | 7.06616286 | 10.872 |

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| ORC2L | 7.78765863 | 7.025482 |
| ORC3L | 3.55864821 | 3.234145 |
| ORC4L | 3.84295532 | 3.422611 |
| ORC5L | 1.30521623 | 1.568703 |
| ORC6L | 0.78780417 | 1.144373 |
| ORM1 | 0 | 0 |
| ORM2 | 0.6726113 | 0.452798 |
| ORMDL1 | 18.1731321 | 17.17495 |
| ORMDL2 | 5.76856906 | 5.478893 |
| ORMDL3 | 29.5092364 | 28.60777 |
| OS9 | 142.151712 | 133.4518 |
| OSBP | 13.3564418 | 12.75314 |
| OSBP2 | 0.16955912 | 0.181615 |
| OSBPL10 | 0.02143801 | 0.030442 |
| OSBPL11 | 5.28579903 | 4.212596 |
| OSBPL1A | 0.22475202 | 0.145183 |
| OSBPL2 | 19.7545983 | 20.19197 |
| OSBPL3 | 0.74240218 | 0.572929 |
| OSBPL5 | 9.9149554 | 13.99801 |
| OSBPL6 | 0.02098336 | 0 |
| OSBPL7 | 6.75732054 | 7.519628 |
| OSBPL8 | 27.560545 | 35.54732 |
| OSBPL9 | 23.4653709 | 19.75269 |
| OSCAR | 41.1818466 | 48.63383 |
| OSGEP | 10.8456458 | 9.943122 |
| OSGEPL1 | 0.77165507 | 0.629098 |
| OSGIN1 | 0.25660837 | 0.291511 |
| OSGIN2 | 14.5272713 | 14.65774 |
| OSM | 51.6896206 | 113.4831 |
| OSMR | 0 | 0.005737 |
| OSR1 | 0 | 0 |
| OSR2 | 0.01122548 | 0.012752 |
| OSTalpha | 5.05763975 | 4.087555 |
| OSTbeta | 0 | 0 |
| OSTC | 5.79269322 | 4.763728 |
| OSTCL | 0.66858793 | 0.699564 |
| OSTF1 | 124.758837 | 129.8673 |
| OSTF1P | 0 | 0 |
| OSTM1 | 8.19926719 | 8.624733 |
| OSTN | 0 | 0 |
| OTC | 0 | 0.029004 |
| OTOA | 0.01711696 | 0.019445 |
| OTOF | 0 | 0.003206 |
| OTOG | 0.0047861 | 0.010874 |
| OTOL1 | 0 | 0 |
| OTOP1 | 0.01124951 | 0 |
| OTOP2 | 0 | 0 |

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| OTOP3 | 0 | 0 |
| OTOR | 0 | 0 |
| OTOS | 0 | 0 |
| OTP | 0.01570226 | 0 |
| OTUB1 | 26.1670967 | 25.6968 |
| OTUB2 | 0.09228779 | 0.049337 |
| OTUD1 | 10.5633208 | 11.50905 |
| OTUD3 | 3.24012775 | 3.024592 |
| OTUD4 | 6.60400159 | 6.28454 |
| OTUD5 | 57.870825 | 58.40304 |
| OTUD6A | 0.01244839 | 0 |
| OTUD6B | 1.51091675 | 1.54261 |
| OTUD7A | 0.01382336 | 0.054962 |
| OTUD7B | 2.05237131 | 1.791476 |
| OTX1 | 0.01932475 | 0.010977 |
| OTX2 | 0 | 0 |
| OVCA2 | 2.57931569 | 2.020023 |
| OVCH1 | 0.41189976 | 0.433005 |
| OVCH2 | 0 | 0 |
| OVGP1 | 0.23444838 | 0.351565 |
| OVOL1 | 0.00702483 | 0.047882 |
| OVOL2 | 0 | 0 |
| OVOS | 0.0093989 | 0.005339 |
| OVOS2 | 0.02744224 | 0.015587 |
| OXA1L | 38.2834706 | 34.63966 |
| OXCT1 | 3.38012628 | 4.511184 |
| OXCT2 | 0 | 0.013095 |
| OXCT2P | 0 | 0 |
| OXER1 | 18.7951909 | 8.088151 |
| OXGR1 | 0 | 0 |
| OXNAD1 | 1.61939555 | 1.461981 |
| OXR1 | 7.44602741 | 6.589831 |
| OXSM | 1.52836394 | 1.26699 |
| OXSR1 | 8.86475926 | 6.711911 |
| OXT | 1.72473418 | 2.192578 |
| OXTR | 0.01928487 | 0.021908 |
| P11 | 0.00905874 | 0 |
| P2RX1 | 92.6759002 | 110.2935 |
| P2RX2 | 0.01101957 | 0 |
| P2RX3 | 0.01558586 | 0 |
| P2RX4 | 4.07443544 | 3.851297 |
| P2RX5 | 2.96245563 | 4.367855 |
| P2RX6 | 0.4325564 | 0.350994 |
| P2RX6P | 0 | 0 |
| P2RX7 | 0.01999239 | 0.015141 |
| P2RY1 | 0.01352111 | 0.00768 |
| P2RY10 | 210.07712 | 175.5756 |

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| P2RY11 | 0.06380981 | 0.120815 |
| P2RY12 | 0 | 0 |
| P2RY13 | 6.20357364 | 3.398604 |
| P2RY14 | 18.9035086 | 6.042916 |
| P2RY2 | 44.9839161 | 46.38388 |
| P2RY4 | 0.08979702 | 0.102011 |
| P2RY5 | 0 | 0 |
| P2RY6 | 3.95185476 | 4.896738 |
| P2RY8 (NC_0000 | 24.3317939 | 44.5329 |
| P2RY8 (NC_0000 | 34.9611288 | 35.97148 |
| P4HA1 | 9.47708948 | 9.522355 |
| P4HA2 | 0.1165484 | 0.167708 |
| P4HA3 | 0 | 0.021053 |
| P4HB | 82.4457218 | 78.99319 |
| P4HTM | 3.13123632 | 3.00264 |
| P5.8 | 0 | 0 |
| P5-04 | 0 | 0 |
| P5-05 | 0 | 0 |
| P5-07 | 0 | 0 |
| P5-09 | 0 | 0 |
| P704P | 0.13562695 | 0.125409 |
| PA2G4 | 13.4510876 | 12.56106 |
| PA2G4P | 0 | 0 |
| PA2G4P2 | 0 | 0 |
| PA2G4P3 | 0 | 0 |
| PA2G4P4 | 0 | 0 |
| PA2G4P5 | 0 | 0 |
| PA2G4P6 | 0 | 0 |
| PAAF1 | 3.21017671 | 2.712505 |
| PABPC1 | 230.190616 | 227.0923 |
| PABPC1L | 1.71836899 | 1.503337 |
| PABPC1L2A | 0.02900046 | 0 |
| PABPC1L2B | 0.00955697 | 0 |
| PABPC1P5 | 0 | 0 |
| PABPC3 | 0.32013878 | 0.314536 |
| PABPC4 | 25.5860691 | 25.21206 |
| PABPC4L | 0 | 0 |
| PABPC5 | 0 | 0 |
| PABPCP1 | 0 | 0 |
| PABPCP2 | 0 | 0 |
| PABPCP3 | 0 | 0 |
| PABPCP5 | 0 | 0 |
| PABPN1 | 50.3857038 | 49.83302 |
| PACRG | 0.0116162 | 0 |
| PACRGL | 0.30427396 | 0.276528 |
| PACS1 | 40.6873885 | 44.65153 |
| PACS2 | 2.03877972 | 2.274593 |

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| PACSIN1 | 0.07448747 | 0.067695 |
| PACSIN2 | 37.915348 | 32.25056 |
| PACSIN3 | 0.03439258 | 0.026047 |
| PADI1 | 0.03825769 | 0.037253 |
| PADI2 | 327.702167 | 409.0688 |
| PADI3 | 0 | 0 |
| PADI4 | 104.337625 | 90.04634 |
| PADI6 | 0.02688661 | 0.030544 |
| PAEP | 0 | 0 |
| PAF1 | 27.5212021 | 25.95672 |
| PAFAH1B1 | 38.2643047 | 43.22209 |
| PAFAH1B2 | 21.0076775 | 18.73106 |
| PAFAH1B3 | 0.62887331 | 0.45246 |
| PAFAH1P1 | 0 | 0 |
| PAFAH1P2 | 0 | 0 |
| PAFAH2 | 79.2398399 | 99.57576 |
| PAG1 | 8.52637444 | 5.975724 |
| PAGE1 | 0 | 0 |
| PAGE2 | 0 | 0 |
| PAGE2B | 0 | 0.048448 |
| PAGE3 | 0 | 0 |
| PAGE4 | 0 | 0.048448 |
| PAGE5 | 0 | 0 |
| PAH | 0 | 0.008912 |
| PAICS | 0.37641257 | 0.366523 |
| PAIP1 | 10.5419079 | 9.650381 |
| PAIP2 | 89.500578 | 87.22755 |
| PAIP2B | 0.2402895 | 0.166817 |
| PAK1 | 37.6630821 | 35.18574 |
| PAK1IP1 | 1.03932832 | 1.308336 |
| PAK2 | 41.2834891 | 39.93821 |
| PAK3 | 0.01282423 | 0.007284 |
| PAK4 | 3.71923283 | 3.250682 |
| PAK6 | 0.28940929 | 0.236486 |
| PAK7 | 0.00440137 | 0 |
| PALB2 | 1.33156975 | 1.206616 |
| PALLD | 0.10496378 | 0.053453 |
| PALM | 0.01463141 | 0 |
| PALM2 | 0.00224558 | 0.002551 |
| PALM2-AKAP2 | 5.32414286 | 5.292272 |
| PALM3 | 0 | 0.010569 |
| PALMD | 0 | 0.009265 |
| PAM | 0.10123702 | 0.084742 |
| PAMR1 | 0 | 0 |
| PAN2 | 8.53271132 | 7.698343 |
| PAN3 | 29.3932144 | 28.42509 |
| PANK1 | 0.00590433 | 0 |

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| PANK2 | 12.4888588 | 11.20069 |
| PANK3 | 12.8380333 | 11.1497 |
| PANK4 | 8.18889688 | 7.467487 |
| PANX1 | 0.15945538 | 0.120763 |
| PANX2 | 55.4636106 | 67.67969 |
| PANX3 | 0 | 0.014928 |
| PAOX | 0.27202585 | 0.592299 |
| PAP2D | 0 | 0 |
| PAPD4 | 30.771106 | 28.92247 |
| PAPD5 | 3.05032144 | 3.745326 |
| PAPL | 0 | 0.010335 |
| PAPLN | 0.47211491 | 0.528142 |
| PAPOLA | 58.883983 | 61.61712 |
| PAPOLB | 0 | 0 |
| PAPOLG | 9.69294999 | 9.537164 |
| PAPPA | 0 | 0 |
| PAPPA2 | 0.00819488 | 0.003103 |
| PAPPAS | 0 | 0 |
| PAPSS1 | 28.2543393 | 18.67962 |
| PAPSS2 | 0.12534542 | 0.123821 |
| PAQR3 | 1.85004918 | 1.533144 |
| PAQR4 | 0.70292711 | 0.958244 |
| PAQR5 | 0.05277064 | 0.077076 |
| PAQR6 | 1.56920278 | 1.647249 |
| PAQR7 | 8.23486333 | 6.439419 |
| PAQR8 | 0.17750385 | 0.080659 |
| PAQR9 | 0.01996708 | 0 |
| PAR1 | 0 | 0 |
| PAR4 | 0 | 0 |
| PAR5 | 0 | 0 |
| PARD3 | 0.00516466 | 0.005867 |
| PARD3B | 0 | 0 |
| PARD6A | 0.4827669 | 0.39714 |
| PARD6B | 0.79272104 | 0.828086 |
| PARD6G | 0.00548106 | 0.031133 |
| PARG | 2.00712071 | 1.819604 |
| PARK2 | 0.10324248 | 0.0821 |
| PARK7 | 23.8695485 | 20.90258 |
| PARL | 19.670299 | 13.76946 |
| PARN | 9.64514858 | 9.599051 |
| PARP1 | 9.84523653 | 9.350256 |
| PARP10 | 20.9715425 | 23.51169 |
| PARP11 | 3.0517622 | 2.483158 |
| PARP12 | 21.0863383 | 21.61064 |
| PARP14 | 14.4924213 | 13.42065 |
| PARP15 | 0.1355016 | 0.059862 |
| PARP16 | 2.82107835 | 2.337611 |

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| PARP1P1 | 0 | 0 |
| PARP1P2 | 0 | 0 |
| PARP2 | 1.43734377 | 1.341718 |
| PARP3 | 0.43654289 | 0.263141 |
| PARP4 | 67.6355179 | 55.72319 |
| PARP4P1 | 0 | 0 |
| PARP6 | 17.4944205 | 15.63538 |
| PARP8 | 30.1581202 | 25.25875 |
| PARP9 | 8.44134847 | 7.587382 |
| PARS2 | 0.62708699 | 0.630966 |
| PAR-SN | 0 | 0 |
| PART1 | 0 | 0 |
| PARVA | 0.00676926 | 0.00769 |
| PARVB | 0.58104804 | 0.757869 |
| PARVG | 79.9383083 | 81.34313 |
| PASD1 | 0 | 0 |
| PASK | 1.70801806 | 1.449979 |
| PATE1 | 0 | 0 |
| PATE2 | 0 | 0 |
| PATE3 | 0 | 0 |
| PATE4 | 0.01058677 | 0.012027 |
| PATL1 | 27.5314745 | 25.64902 |
| PATL2 | 4.79562905 | 4.235904 |
| PATZ1 | 9.55895263 | 8.598044 |
| PAWR | 0.02155339 | 0.012242 |
| PAX1 | 0 | 0.008416 |
| PAX2 | 0.48489232 | 0.278262 |
| PAX3 | 0 | 0 |
| PAX4 | 0 | 0 |
| PAX5 | 0.03456219 | 0.104702 |
| PAX6 | 0.0559576 | 0.026766 |
| PAX7 | 0.00333048 | 0.003783 |
| PAX8 | 0.05703542 | 0.053013 |
| PAX9 | 0 | 0.00771 |
| PAXIP1 | 4.00455522 | 3.603357 |
| PBK | 0.02268105 | 0 |
| PBLD | 0.37571544 | 0.184118 |
| PBOV1 | 0 | 0 |
| PBPP1 | 0 | 0 |
| PBRM1 | 7.60774265 | 7.017216 |
| PBX1 | 0.19191159 | 0.196571 |
| PBX2 | 74.4295407 | 63.73079 |
| PBX2P1 | 0 | 0 |
| PBX3 | 6.47349965 | 7.807854 |
| PBX4 | 0.08772739 | 0.232539 |
| PBXIP1 | 127.99885 | 112.1682 |
| PC | 0.02478818 | 0.011264 |

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| PCA3 | 0 | 0 |
| PCBD1 | 0.41799863 | 0.617309 |
| PCBD2 | 2.0600934 | 1.918442 |
| PCBP1 | 198.137628 | 204.8445 |
| PCBP2 | 111.226719 | 104.9182 |
| PCBP2P1 | 0 | 0 |
| PCBP2P2 | 0 | 0 |
| PCBP3 | 2.73783847 | 2.822021 |
| PCBP4 | 2.12498007 | 2.10801 |
| PCCA | 0.39622717 | 0.249003 |
| PCCB | 0.97360959 | 0.737357 |
| PCDH1 | 0 | 0.004468 |
| PCDH10 | 0.00359776 | 0.008174 |
| PCDH11X | 0.0036417 | 0.004137 |
| PCDH11Y | 0 | 0 |
| PCDH12 | 0.10143444 | 0.064529 |
| PCDH15 | 0.00506309 | 0.001917 |
| PCDH17 | 0.11025895 | 0.020876 |
| PCDH18 | 0 | 0 |
| PCDH19 | 0 | 0.002484 |
| PCDH20 | 0 | 0 |
| PCDH21 | 0.13819466 | 0.125593 |
| PCDH24 | 0.02053756 | 0.029164 |
| PCDH7 | 0.0021227 | 0.007234 |
| PCDH8 | 0.00525371 | 0.011937 |
| PCDH9 | 0.00675296 | 0 |
| PCDHA@ | 0 | 0 |
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| PCDHA12 | 0 | 0 |
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| PCDHA3 | 0 | 0 |
| PCDHA4 | 0.00391971 | 0 |
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| PCDHA8 | 0 | 0 |
| PCDHA9 | 0 | 0 |
| PCDHAC1 | 0 | 0 |
| PCDHAC2 | 0 | 0 |
| PCDHACT | 0 | 0 |
| PCDHB1 | 0.00829729 | 0 |
| PCDHB10 | 0 | 0 |
| PCDHB11 | 0.0064278 | 0 |

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| PCDHB12 | 0 | 0.014017 |
| PCDHB13 | 0.00603309 | 0 |
| PCDHB14 | 0 | 0.008583 |
| PCDHB15 | 0 | 0 |
| PCDHB16 | 0 | 0 |
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| PCDHB18 | 0 | 0 |
| PCDHB19P | 0 | 0 |
| PCDHB2 | 0 | 0 |
| PCDHB3 | 0 | 0 |
| PCDHB4 | 0.0058065 | 0 |
| PCDHB5 | 0.00723764 | 0 |
| PCDHB6 | 0 | 0.015766 |
| PCDHB7 | 0.00565958 | 0.012859 |
| PCDHB8 | 0 | 0 |
| PCDHB9 | 0.00498349 | 0 |
| PCDHGA1 | 0.00451866 | 0 |
| PCDHGA10 | 0 | 0 |
| PCDHGA11 | 0 | 0 |
| PCDHGA12 | 0 | 0 |
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| PCDHGA3 | 0 | 0 |
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| PCDHGA6 | 0 | 0 |
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| PCDHGB9P | 0 | 0 |
| PCDHGC3 | 0 | 0 |
| PCDHGC4 | 0 | 0 |
| PCDHGC5 | 0 | 0 |
| PCDP1 | 0.00713691 | 0 |
| PCF11 | 28.6062553 | 26.69251 |
| PCGEM1 | 0 | 0 |
| PCGF1 | 5.778485 | 5.246288 |
| PCGF2 | 0.00807424 | 0.018345 |
| PCGF3 | 19.8675648 | 18.28269 |
| PCGF5 | 11.6233765 | 12.0012 |

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| PCGF6 | 2.21567389 | 2.334957 |
| PCGF7P | 0 | 0 |
| PCID2 | 2.83639368 | 2.787449 |
| PCIF1 | 32.2513141 | 32.8387 |
| PCK1 | 0.00783066 | 0 |
| PCK2 | 2.06980885 | 1.775119 |
| PCLO | 0.00188543 | 0 |
| PCM1 | 16.4793782 | 15.95241 |
| PCMT1 | 18.3692229 | 18.13416 |
| PCMTD1 | 24.5814548 | 25.64825 |
| PCMTD2 | 8.33596327 | 7.662529 |
| PCNA | 8.57343593 | 7.553128 |
| PCNAP | 0 | 0 |
| PCNAP1 | 0 | 0 |
| PCNAP2 | 0 | 0 |
| PCNP | 25.8144863 | 24.61052 |
| PCNPP | 0 | 0 |
| PCNT | 2.92682164 | 2.770763 |
| PCNX | 10.557421 | 9.752609 |
| PCNXL2 | 0.012337 | 0.017519 |
| PCNXL3 | 17.72071 | 17.77014 |
| PCOLCE | 2.63465567 | 2.314791 |
| PCOLCE2 | 0.01100803 | 0.012505 |
| PCOTH | 0 | 0 |
| PCP2 | 1.96554085 | 1.556254 |
| PCP4 | 0 | 0 |
| PCP4L1 | 1.22549331 | 1.29154 |
| PCSK1 | 0 | 0 |
| PCSK1N | 0.21608768 | 0.098192 |
| PCSK2 | 0 | 0 |
| PCSK4 | 0.23703868 | 0.260304 |
| PCSK5 | 0.01872247 | 0.021269 |
| PCSK6 | 0.56239304 | 0.874455 |
| PCSK7 | 13.7292273 | 12.10709 |
| PCSK9 | 0 | 0.013138 |
| PCTK1 | 17.242844 | 16.10217 |
| PCTK2 | 20.8952559 | 22.56702 |
| PCTK3 | 0.02605369 | 0.036997 |
| PCTP | 73.9492511 | 57.26544 |
| PCYOX1 | 1.57582451 | 1.710204 |
| PCYOX1L | 1.52697934 | 1.887171 |
| PCYT1A | 27.5600516 | 25.78626 |
| PCYT1B | 0.12351948 | 0.02631 |
| PCYT2 | 2.42075432 | 2.065739 |
| PDAP1 | 17.40788 | 17.771 |
| PDC | 0 | 0.018261 |
| PDCD1 | 0.02986553 | 0.045237 |

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| PDCD10 | 16.6701796 | 15.02524 |
| PDCD11 | 1.85806775 | 1.593333 |
| PDCD1LG2 | 0.00869534 | 0 |
| PDCD2 | 6.73837391 | 6.451987 |
| PDCD2L | 0.29050544 | 0.330019 |
| PDCD4 | 158.388909 | 174.3254 |
| PDCD5 | 3.67108953 | 3.075155 |
| PDCD6 | 34.3629858 | 33.88108 |
| PDCD6IP | 27.9185614 | 28.95995 |
| PDCD7 | 6.98386125 | 6.509551 |
| PDCL | 7.50411922 | 8.202615 |
| PDCL2 | 0 | 0 |
| PDCL3 | 12.4196141 | 10.10951 |
| PDDC1 | 1.29149409 | 1.363143 |
| PDE10A | 0 | 0 |
| PDE11A | 0.00429527 | 0.004879 |
| PDE12 | 3.59110336 | 3.834299 |
| PDE1A | 0.00739027 | 0.008395 |
| PDE1B | 7.57150387 | 9.29367 |
| PDE1C | 0 | 0 |
| PDE2A | 0.14684358 | 0.197147 |
| PDE3A | 0.02549143 | 0.028959 |
| PDE3B | 32.8824992 | 28.22215 |
| PDE4A | 36.1661542 | 39.23273 |
| PDE4B | 39.5742466 | 40.66379 |
| PDE4C | 0.00728276 | 0.016547 |
| PDE4D | 30.7768985 | 28.65474 |
| PDE4DIP | 1.66338052 | 1.121966 |
| PDE5A | 0.24305048 | 0.20625 |
| PDE6A | 0.0149063 | 0.016934 |
| PDE6B | 0.23124306 | 0.195338 |
| PDE6C | 0.03539618 | 0.024126 |
| PDE6D | 7.95502236 | 7.477449 |
| PDE6G | 1.15094676 | 0.98062 |
| PDE6H | 0.11600183 | 0.098835 |
| PDE7A | 16.0627006 | 16.63741 |
| PDE7B | 0.27320831 | 0.221692 |
| PDE8A | 10.7273192 | 11.99742 |
| PDE8B | 0.15914885 | 0.154011 |
| PDE9A | 0.45542233 | 0.700601 |
| PDF | 0.07262636 | 0 |
| PDGFA | 0.02245496 | 0.076528 |
| PDGFB | 0.01225252 | 0.041757 |
| PDGFC | 0.22374812 | 0.270068 |
| PDGFD | 2.23785767 | 2.2611 |
| PDGFRA | 0.03837906 | 0.039966 |
| PDGFRB | 0.05151464 | 0.045981 |

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|---------|------------|----------|
| PDGFRL | 0 | 0 |
| PDHA1 | 5.85571158 | 5.53279 |
| PDHA2 | 0 | 0 |
| PDHB | 22.467702 | 20.30865 |
| PDHX | 2.57539195 | 1.926476 |
| PDIA2 | 0.01218154 | 0.013838 |
| PDIA3 | 98.0424814 | 91.31714 |
| PDIA3P | 0 | 0 |
| PDIA4 | 5.90447133 | 5.590993 |
| PDIA5 | 0 | 0.014226 |
| PDIA6 | 7.71290062 | 7.530786 |
| PDIK1L | 2.06806534 | 1.433798 |
| PDILT | 0 | 0 |
| PDK1 | 1.52543922 | 1.602432 |
| PDK2 | 1.94644985 | 1.282912 |
| PDK3 | 6.56156489 | 5.748729 |
| PDK4 | 19.1841939 | 16.18378 |
| PDLIM1 | 25.7603745 | 31.09012 |
| PDLIM1P | 0 | 0 |
| PDLIM2 | 14.6735689 | 12.93504 |
| PDLIM3 | 0 | 0 |
| PDLIM4 | 0.02748409 | 0.08326 |
| PDLIM5 | 3.54884345 | 3.60768 |
| PDLIM7 | 143.86233 | 180.9464 |
| PDP2 | 0.53249533 | 0.66105 |
| PDPK1 | 22.1730653 | 20.22774 |
| PDPK2 | 0 | 0 |
| PDPN | 0 | 0 |
| PDPR | 15.7630841 | 13.42511 |
| PDRG1 | 5.55877286 | 4.540432 |
| PDS5A | 10.3354702 | 11.12164 |
| PDS5B | 7.84544081 | 8.298549 |
| PDSS1 | 0.46751817 | 0.354072 |
| PDSS2 | 0.3669962 | 0.28915 |
| PDX1 | 0.00817152 | 0.018566 |
| PDXDC1 | 28.0337746 | 26.27898 |
| PDXDC2 | 0 | 0 |
| PDXK | 10.9584674 | 16.09599 |
| PDXP | 3.83804046 | 3.812087 |
| PDYN | 0 | 0.018682 |
| PDZD11 | 2.88549887 | 1.706079 |
| PDZD2 | 0.09932943 | 0.067704 |
| PDZD3 | 4.46454396 | 5.136816 |
| PDZD4 | 0.0280712 | 0.019134 |
| PDZD7 | 0.05201715 | 0.094548 |
| PDZD8 | 31.5845733 | 28.88996 |
| PDZK1 | 0.21953359 | 0.215385 |

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|----------|------------|----------|
| PDZK1IP1 | 0 | 0.026717 |
| PDZK1P1 | 0 | 0 |
| PDZK1P2 | 0 | 0 |
| PDZRN3 | 0.01515885 | 0 |
| PDZRN4 | 0 | 0 |
| PEA15 | 5.51819136 | 7.690831 |
| PEAR1 | 0.01728346 | 0.019634 |
| PEBP1 | 3.4266636 | 3.316041 |
| PEBP4 | 0.02351827 | 0.026717 |
| PECAM1 | 37.8706445 | 33.57788 |
| PECI | 2.67125106 | 1.713071 |
| PECR | 0.15766183 | 0.140726 |
| PEF1 | 18.2567781 | 16.91244 |
| PEG10 | 0.01588496 | 0.007218 |
| PEG3 | 0 | 0 |
| PEG3AS | 0 | 0 |
| PELI1 | 34.9733804 | 31.38606 |
| PELI2 | 11.7233938 | 13.21732 |
| PELI3 | 1.15700619 | 0.861744 |
| PELO | 0.41042598 | 0.359913 |
| PELP1 | 4.96161185 | 4.778322 |
| PEMT | 0.22589199 | 0.414535 |
| PENK | 0 | 0 |
| PEPD | 0.49261743 | 0.67869 |
| PER1 | 8.02793482 | 6.751132 |
| PER2 | 1.81012783 | 2.056334 |
| PER3 | 0.89483917 | 0.773965 |
| PER4 | 0 | 0 |
| PERLD1 | 2.2066034 | 2.06228 |
| PERP | 0.05376073 | 0.055521 |
| PES1 | 3.94108768 | 3.516243 |
| PET112L | 0.20910324 | 0.201913 |
| PEX1 | 5.9256695 | 5.101886 |
| PEX10 | 0.49674118 | 0.449141 |
| PEX11A | 0.1807853 | 0.123225 |
| PEX11B | 8.81496795 | 7.447407 |
| PEX11G | 10.0375168 | 7.152038 |
| PEX12 | 1.67701112 | 1.299749 |
| PEX13 | 2.94308066 | 2.634504 |
| PEX14 | 3.67888709 | 3.584007 |
| PEX16 | 12.4190503 | 10.97864 |
| PEX19 | 11.2318476 | 10.14255 |
| PEX26 | 3.61288978 | 3.049905 |
| PEX3 | 1.37945574 | 1.110735 |
| PEX5 | 1.7448003 | 1.561335 |
| PEX5L | 0 | 0 |
| PEX6 | 2.78895185 | 3.769177 |

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| PEX7 | 0.63842098 | 0.257869 |
| PF4 | 0.22085432 | 0.250894 |
| PF4V1 | 0 | 0 |
| PFAS | 0.40606025 | 0.390323 |
| PFDN1 | 10.7985083 | 8.857695 |
| PFDN2 | 19.3223447 | 17.41158 |
| PFDN4 | 0.98409796 | 0.532358 |
| PFDN5 | 128.722769 | 119.5994 |
| PFDN6 | 11.9285127 | 10.6156 |
| PFKFB1 | 0.01213233 | 0.041348 |
| PFKFB2 | 17.0975977 | 16.75328 |
| PFKFB3 | 13.7984345 | 18.76541 |
| PFKFB4 | 13.0308856 | 14.30369 |
| PFKL | 33.7863283 | 39.97251 |
| PFKM | 2.60196602 | 2.060901 |
| PFKP | 2.91750579 | 2.903465 |
| PFN1 | 1094.02066 | 1344.018 |
| PFN2 | 0.06988477 | 0.15878 |
| PFN3 | 0 | 0.045066 |
| PFN4 | 0 | 0.030819 |
| PFTK1 | 1.80411178 | 1.72158 |
| PFTK2 | 0.64419202 | 0.404832 |
| PGA3 | 0 | 0 |
| PGA4 | 0 | 0 |
| PGA5 | 0.0309196 | 0 |
| PGAM1 | 116.739483 | 140.3806 |
| PGAM2 | 64.8407089 | 71.45485 |
| PGAM3P | 0 | 0 |
| PGAM4 | 0.06264997 | 0.056937 |
| PGAM5 | 1.27869085 | 1.037581 |
| PGAP1 | 0.06054266 | 0.06018 |
| PGBD1 | 0.16463554 | 0.194821 |
| PGBD2 | 4.54035386 | 3.720752 |
| PGBD3 | 0.21296376 | 0.109968 |
| PGBD3P1 | 0 | 0 |
| PGBD3P2 | 0 | 0 |
| PGBD3P3 | 0 | 0 |
| PGBD3P4 | 0 | 0 |
| PGBD4 | 0.70749604 | 0.515209 |
| PGBD5 | 0 | 0 |
| PGC | 0.01552831 | 0.035281 |
| PGCP | 6.90863987 | 6.928697 |
| PGD | 384.653925 | 304.9205 |
| PGDS | 0.01301878 | 0.01479 |
| PGF | 0.01214635 | 0.055194 |
| PGGT1B | 12.0970826 | 10.6156 |
| PGK1 | 141.398171 | 153.1979 |

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|---------|------------|----------|
| PGK1P1 | 0 | 0 |
| PGK1P2 | 0 | 0 |
| PGK2 | 0 | 0.029057 |
| PGLS | 26.3528326 | 23.23832 |
| PGLYRP1 | 53.4774722 | 38.56234 |
| PGLYRP2 | 0.53624649 | 1.332591 |
| PGLYRP3 | 0.01792441 | 0 |
| PGLYRP4 | 0 | 0 |
| PGM1 | 11.9840984 | 14.32913 |
| PGM2 | 12.0580728 | 7.959244 |
| PGM2L1 | 1.79065282 | 2.582098 |
| PGM3 | 7.53917334 | 8.085481 |
| PGM5 | 0.00629878 | 0.014311 |
| PGM5P1 | 0 | 0 |
| PGM5P2 | 0 | 0 |
| PGP | 1.84373916 | 1.134847 |
| PGPEP1 | 14.0891087 | 12.99115 |
| PGR | 0.00161274 | 0.003664 |
| PGRMC1 | 8.60326695 | 8.788623 |
| PGRMC2 | 7.06523817 | 6.077734 |
| PGS1 | 85.6647951 | 80.28535 |
| PHACTR1 | 0.84101324 | 0.833201 |
| PHACTR2 | 3.03895178 | 4.356296 |
| PHACTR3 | 0.02844144 | 0.03231 |
| PHACTR4 | 10.6843141 | 10.69164 |
| PHAX | 4.502855 | 4.365069 |
| PHB | 2.15319654 | 1.360379 |
| PHB2 | 19.4517095 | 17.71107 |
| PHBP1 | 0 | 0 |
| PHC1 | 5.2329893 | 4.413603 |
| PHC1B | 0 | 0 |
| PHC2 | 18.1296267 | 22.88394 |
| PHC3 | 12.9715939 | 11.84077 |
| PHEX | 1.3962995 | 0.926685 |
| PHF1 | 122.058559 | 111.0129 |
| PHF10 | 20.3345345 | 25.11218 |
| PHF10P1 | 0 | 0 |
| PHF11 | 9.2745808 | 8.589598 |
| PHF12 | 53.1421465 | 50.34582 |
| PHF13 | 6.16437496 | 5.994056 |
| PHF14 | 0.67483049 | 0.651886 |
| PHF15 | 14.2294287 | 14.32811 |
| PHF16 | 0.06765995 | 0.105686 |
| PHF17 | 6.69478623 | 5.190002 |
| PHF19 | 4.03250807 | 5.49824 |
| PHF2 | 18.4271362 | 19.74127 |
| PHF20 | 31.6611708 | 27.30422 |

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| PHF20L1 | 17.3352109 | 19.12651 |
| PHF21A | 9.21254286 | 8.910558 |
| PHF21B | 0.01697416 | 0 |
| PHF23 | 21.7065641 | 22.18489 |
| PHF3 | 19.6845764 | 17.53477 |
| PHF5A | 14.8460553 | 13.09756 |
| PHF5CP | 0 | 0 |
| PHF5DP | 0 | 0 |
| PHF5EP | 0 | 0 |
| PHF5FP | 0 | 0 |
| PHF5GP | 0 | 0 |
| PHF5HP | 0 | 0 |
| PHF6 | 3.32606512 | 3.120497 |
| PHF7 | 1.48729274 | 0.954985 |
| PHF8 | 17.787194 | 16.80789 |
| PHGDH | 0 | 0 |
| PHIP | 16.1529222 | 14.90274 |
| PHKA1 | 0.02388854 | 0 |
| PHKA1P1 | 0 | 0 |
| PHKA2 | 12.788929 | 11.86854 |
| PHKB | 4.37566161 | 4.035384 |
| PHKBP1 | 0 | 0 |
| PHKBP2 | 0 | 0 |
| PHKG1 | 0.89625799 | 1.335296 |
| PHKG1P1 | 0 | 0 |
| PHKG1P2 | 0 | 0 |
| PHKG1P3 | 0 | 0 |
| PHKG1P4 | 0 | 0 |
| PHKG2 | 61.2826165 | 64.78323 |
| PHLDA1 | 0.03555781 | 0.008079 |
| PHLDA2 | 0.02285362 | 0.103848 |
| PHLDA3 | 0.13868952 | 0.141798 |
| PHLDB1 | 0.02173535 | 0.008231 |
| PHLDB2 | 0.04126348 | 0.021635 |
| PHLDB3 | 0.09292031 | 0.134348 |
| PHLPP | 1.31024884 | 1.438682 |
| PHLPPL | 0.62924655 | 0.772141 |
| PHOSPHO1 | 130.728599 | 173.6589 |
| PHOSPHO2 | 0 | 0.021231 |
| PHOX2A | 0.01237512 | 0.014058 |
| PHOX2B | 0.01387811 | 0 |
| PHPT1 | 0.80672733 | 0.687341 |
| PHRF1 | 22.2397218 | 30.26399 |
| PHTF1 | 16.3782402 | 19.81345 |
| PHTF2 | 7.95665111 | 4.734997 |
| PHYH | 1.150586 | 0.961816 |
| PHYHD1 | 0.03935485 | 0.022354 |

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| PHYHIP | 0.01890201 | 0.007158 |
| PHYHIPL | 0 | 0.0064 |
| PI15 | 0 | 0 |
| PI16 | 0 | 0.010906 |
| PI3 | 0 | 0.129342 |
| PI4K2A | 0.61292482 | 0.753365 |
| PI4K2B | 4.09880098 | 3.55524 |
| PI4KA | 41.8199861 | 41.22592 |
| PI4KAP1 | 0 | 0 |
| PI4KAP2 | 0 | 0 |
| PI4KB | 34.6606003 | 27.74554 |
| PIAS1 | 32.7734298 | 32.22246 |
| PIAS2 | 1.15523796 | 1.39986 |
| PIAS3 | 8.80281775 | 6.831372 |
| PIAS4 | 11.2086681 | 9.48804 |
| PIBF1 | 2.09308047 | 1.779494 |
| PICALM | 42.3980983 | 41.28862 |
| PICK1 | 3.99166909 | 3.235907 |
| PID1 | 0.00745051 | 0.025392 |
| PIF1 | 0.00791021 | 0.035944 |
| PIGA | 3.52269068 | 3.014625 |
| PIGAP1 | 0 | 0 |
| PIGB | 6.90955346 | 6.74045 |
| PIGC | 2.22868508 | 1.910809 |
| PIGCP1 | 0 | 0 |
| PIGF | 9.83532693 | 7.399535 |
| PIGFP1 | 0 | 0 |
| PIGG | 4.99432477 | 4.585941 |
| PIGH | 10.3225895 | 9.700211 |
| PIGK | 1.52713169 | 1.249502 |
| PIGL | 4.07000764 | 3.649114 |
| PIGM | 1.17239814 | 1.016858 |
| PIGN | 0.83652875 | 0.778862 |
| PIGO | 2.9926003 | 2.371571 |
| PIGP | 0.21614826 | 0.200903 |
| PIGQ | 4.14462376 | 3.84189 |
| PIGR | 0.00492858 | 0 |
| PIGS | 30.3853721 | 27.57637 |
| PIGT | 27.0083022 | 26.85467 |
| PIGU | 0.67712583 | 0.560622 |
| PIGV | 1.5824562 | 1.100836 |
| PIGW | 0.00932387 | 0 |
| PIGX | 17.2767358 | 14.77891 |
| PIGY | 8.53134272 | 7.732208 |
| PIGZ | 0.21017547 | 0.256449 |
| PIH1D1 | 39.9245049 | 43.66796 |
| PIH1D2 | 0.0577619 | 0.016405 |

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|---------|------------|----------|
| PIK3AP1 | 39.3279886 | 43.01901 |
| PIK3C2A | 8.0778865 | 7.096384 |
| PIK3C2B | 0.53074724 | 0.499307 |
| PIK3C2G | 0 | 0 |
| PIK3C3 | 13.0851685 | 12.98933 |
| PIK3CA | 10.1388315 | 9.439508 |
| PIK3CB | 56.6106873 | 59.8949 |
| PIK3CD | 101.544072 | 95.19172 |
| PIK3CG | 27.8266092 | 24.99078 |
| PIK3IP1 | 13.9261998 | 16.09082 |
| PIK3R1 | 20.5340424 | 18.08695 |
| PIK3R2 | 0.99307048 | 1.24945 |
| PIK3R3 | 3.10343532 | 1.478717 |
| PIK3R4 | 6.02511965 | 5.313595 |
| PIK3R5 | 55.4060262 | 54.36556 |
| PIK3R6 | 167.234376 | 180.3483 |
| PIKFYVE | 14.9657166 | 13.42665 |
| PILRA | 17.9897589 | 15.73586 |
| PILRB | 69.310187 | 65.85381 |
| PIM1 | 89.6118388 | 155.8219 |
| PIM2 | 65.3832994 | 54.94558 |
| PIM3 | 2.13876843 | 2.459795 |
| PIN1 | 35.2179566 | 37.85203 |
| PIN1L | 0 | 0 |
| PIN4 | 3.61219505 | 3.16684 |
| PINK1 | 42.145513 | 41.82588 |
| PINX1 | 1.08440102 | 0.980955 |
| PION | 6.70663433 | 6.597609 |
| PIP | 0 | 0 |
| PIP4K2A | 51.3208965 | 44.94115 |
| PIP4K2B | 3.43330596 | 2.741871 |
| PIP4K2C | 20.9534249 | 20.16838 |
| PIP5K1A | 11.3107113 | 10.17642 |
| PIP5K1B | 20.5420811 | 22.49016 |
| PIP5K1C | 16.0928975 | 19.54064 |
| PIP5KL1 | 0.13540904 | 0.19578 |
| PIPOX | 0.59275394 | 0.653573 |
| PIPSL | 0 | 0 |
| PIR | 0.03195339 | 0.01815 |
| PIRT | 0 | 0.006891 |
| PISD | 26.0560279 | 24.57162 |
| PISRT1 | 0 | 0 |
| PITPNA | 30.1665281 | 34.05317 |
| PITPNB | 12.4786238 | 10.6646 |
| PITPNC1 | 16.7065604 | 19.4888 |
| PITPNM1 | 66.5686058 | 78.07028 |
| PITPNM2 | 0.43074461 | 0.677265 |

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| PITPNM3 | 0.04410292 | 0.01002 |
| PITRM1 | 5.80995112 | 5.211045 |
| PITX1 | 0.0176461 | 0 |
| PITX2 | 0 | 0 |
| PITX3 | 0 | 0.034417 |
| PIWIL1 | 0.00617303 | 0.007013 |
| PIWIL2 | 0.01538814 | 0.011654 |
| PIWIL3 | 0 | 0 |
| PIWIL4 | 1.6759798 | 1.67248 |
| PJA1 | 0.28402236 | 0.45346 |
| PJA2 | 49.7975183 | 48.75623 |
| PKD1 | 3.33865243 | 3.311276 |
| PKD1L1 | 0.00467178 | 0.013268 |
| PKD1L2 | 0.00774889 | 0.008803 |
| PKD1L3 | 0.18674536 | 0.15391 |
| PKD1P1 | 0 | 0 |
| PKD1P2 | 0 | 0 |
| PKD1P3 | 0 | 0 |
| PKD1P4 | 0 | 0 |
| PKD1P5 | 0 | 0 |
| PKD1P6 | 0 | 0 |
| PKD2 | 7.78469532 | 9.056122 |
| PKD2L1 | 0.00689129 | 0.031314 |
| PKD2L2 | 1.09013213 | 1.378401 |
| PKDREJ | 0.16468928 | 0.174617 |
| PKHD1 | 0 | 0.002744 |
| PKHD1L1 | 0.00299998 | 0.003408 |
| PKIA | 0.00962698 | 0.010936 |
| PKIB | 0.05786788 | 0 |
| PKIG | 0.35213394 | 0.366694 |
| PKLR | 0.01993552 | 0.015098 |
| PKM2 | 30.3057833 | 22.90146 |
| PKMYT1 | 0.27471268 | 0.501554 |
| PKN1 | 53.6695709 | 61.33507 |
| PKN2 | 16.6025713 | 14.30602 |
| PKN3 | 0.14942492 | 0.155603 |
| PKNOX1 | 3.37605294 | 3.456045 |
| PKNOX2 | 0.00563682 | 0.012807 |
| PKP1 | 0.00386282 | 0 |
| PKP2 | 1.98933071 | 2.211485 |
| PKP2P1 | 0 | 0 |
| PKP3 | 0.00748499 | 0 |
| PKP4 | 1.26399289 | 1.238217 |
| PL-5283 | 16.4633897 | 14.42859 |
| PLA1A | 0.13193305 | 0.027251 |
| PLA2G10 | 0.23197456 | 0.263527 |
| PLA2G12A | 0.55023311 | 0.415195 |

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| PLA2G12B | 0 | 0.043746 |
| PLA2G15 | 2.39362931 | 2.236762 |
| PLA2G16 | 0.04420182 | 0.050214 |
| PLA2G1B | 0 | 0 |
| PLA2G2A | 0 | 0 |
| PLA2G2C | 0 | 0 |
| PLA2G2D | 0.01598884 | 0 |
| PLA2G2E | 0 | 0 |
| PLA2G2F | 0 | 0 |
| PLA2G3 | 0 | 0 |
| PLA2G4A | 1.45769883 | 0.628126 |
| PLA2G4B | 0.02306252 | 0.087331 |
| PLA2G4C | 0.02602145 | 0.009854 |
| PLA2G4D | 0.00586644 | 0 |
| PLA2G4E | 0 | 0 |
| PLA2G4F | 0.01237148 | 0.007027 |
| PLA2G5 | 0 | 0 |
| PLA2G6 | 3.11824642 | 2.727186 |
| PLA2G7 | 0.01143302 | 0 |
| PLA2R1 | 0.00358672 | 0.004075 |
| PLAA | 7.14708465 | 6.412433 |
| PLAC1 | 0 | 0.021212 |
| PLAC1L | 0.01287528 | 0 |
| PLAC2 | 0 | 0 |
| PLAC4 | 0 | 0 |
| PLAC8 | 7.26032555 | 6.345388 |
| PLAC8L1 | 0.11600183 | 0.06589 |
| PLAC9 | 1.65578386 | 1.951978 |
| PLAG1 | 1.28937026 | 1.188071 |
| PLAGL1 | 38.7698245 | 41.73274 |
| PLAGL2 | 6.587144 | 7.039688 |
| PLAT | 0.26505302 | 1.053866 |
| PLAU | 0.16407728 | 0.372789 |
| PLAUR | 246.693014 | 183.9667 |
| PLB1 | 5.85951846 | 4.741168 |
| PLBD1 | 0.08706141 | 0.049452 |
| PLBD2 | 0.60587013 | 0.651074 |
| PLCB1 | 0.33280606 | 0.269552 |
| PLCB2 | 198.569573 | 196.9743 |
| PLCB3 | 3.18359262 | 4.577173 |
| PLCB4 | 0.00380342 | 0.012962 |
| PLCD1 | 0.05385932 | 0.053537 |
| PLCD3 | 15.5182625 | 17.78781 |
| PLCD4 | 0.708107 | 0.83536 |
| PLCE1 | 0.01578478 | 0.02092 |
| PLCG1 | 3.79708186 | 4.584289 |
| PLCG2 | 72.4360082 | 70.92317 |

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|----------------|------------|----------|
| PLCH1 | 0 | 0 |
| PLCH2 | 0.08693542 | 0.09876 |
| PLCL1 | 0.07520985 | 0.094933 |
| PLCL2 | 38.7674126 | 39.48355 |
| PLCXD1 (NC_000 | 0.91765233 | 0.400949 |
| PLCXD1 (NC_000 | 0.22987167 | 0.270143 |
| PLCXD2 | 1.20569059 | 0.700569 |
| PLCXD3 | 0 | 0 |
| PLCZ1 | 0 | 0 |
| PLD1 | 6.58991689 | 4.522498 |
| PLD2 | 0.74506359 | 0.426643 |
| PLD3 | 54.5899692 | 53.99132 |
| PLD4 | 21.6884877 | 24.77432 |
| PLD5 | 0.01540882 | 0 |
| PLD6 | 0.18867835 | 0.12115 |
| PLDN | 16.5492455 | 15.29714 |
| PLEC1 | 27.9189455 | 46.08759 |
| PLEK | 95.7050654 | 67.56839 |
| PLEK2 | 0.01440091 | 0 |
| PLEKHA1 | 0.84743826 | 0.811691 |
| PLEKHA2 | 170.863893 | 198.8549 |
| PLEKHA3 | 5.76281338 | 5.889082 |
| PLEKHA3P1 | 0 | 0 |
| PLEKHA4 | 0.06880017 | 0.031263 |
| PLEKHA5 | 0.03989626 | 0.020143 |
| PLEKHA6 | 0.06251619 | 0.032282 |
| PLEKHA7 | 0.75763013 | 0.651729 |
| PLEKHA8 | 0.62556456 | 0.445663 |
| PLEKHA9 | 0.62881631 | 0.350679 |
| PLEKHB1 | 0.09451221 | 0.123885 |
| PLEKHB2 | 33.8416074 | 37.03079 |
| PLEKHF1 | 0.12083524 | 0.398085 |
| PLEKHF2 | 14.5936238 | 14.70427 |
| PLEKHG1 | 0.04067357 | 0.07591 |
| PLEKHG2 | 0.17412855 | 0.200953 |
| PLEKHG3 | 54.6897529 | 37.89047 |
| PLEKHG4 | 0.04326836 | 0.070219 |
| PLEKHG4B | 0.00182591 | 0.002074 |
| PLEKHG5 | 0.07076728 | 0.029618 |
| PLEKHG6 | 0.07047597 | 0.133436 |
| PLEKHG7 | 0 | 0.007311 |
| PLEKHH1 | 0.06429765 | 0.065739 |
| PLEKHH2 | 0.11186903 | 0.154563 |
| PLEKHH3 | 0.02059961 | 0.015601 |
| PLEKHJ1 | 16.456864 | 15.4516 |
| PLEKHM1 | 30.5013114 | 30.5065 |
| PLEKHM1P | 0 | 0 |

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| PLEKHM2 | 16.3734382 | 18.30496 |
| PLEKHM3 | 0.92831328 | 0.713606 |
| PLEKHN1 | 0.06122185 | 0.059613 |
| PLEKHO1 | 1.11961515 | 1.109216 |
| PLEKHO2 | 31.8459461 | 44.11781 |
| PLG | 0.03822787 | 0.078169 |
| PLGLA | 0 | 0 |
| PLGLB1 | 0.02793136 | 0.111057 |
| PLGLB2 | 0.56467235 | 0.562282 |
| PLIN | 0.00708878 | 0.008053 |
| PLK1 | 0.80456545 | 0.858939 |
| PLK2 | 2.78476207 | 2.494819 |
| PLK3 | 7.34727426 | 27.51143 |
| PLK4 | 0.68339215 | 0.601041 |
| PLK5P | 0 | 0 |
| PLLP | 0 | 0 |
| PLN | 0 | 0 |
| PLOD1 | 0.56692803 | 0.747404 |
| PLOD2 | 0.01035731 | 0.023532 |
| PLOD3 | 2.25296627 | 2.053943 |
| PLP1 | 0.01329455 | 0 |
| PLP2 | 165.509414 | 229.1325 |
| PLRG1 | 10.8605327 | 9.404008 |
| PLS1 | 0.44292635 | 0.3106 |
| PLS3 | 0.00674754 | 0.007665 |
| PLSCR1 | 18.4280842 | 16.2008 |
| PLSCR2 | 0.01662081 | 0.056645 |
| PLSCR3 | 3.03458385 | 3.556775 |
| PLSCR4 | 0.00574463 | 0.03263 |
| PLSCR5 | 0 | 0 |
| PLTP | 1.02415652 | 0.985517 |
| PLUNC | 0 | 0 |
| PLVAP | 0.02771353 | 0.07346 |
| PLXDC1 | 0.01345191 | 0.015282 |
| PLXDC2 | 9.09422565 | 8.167345 |
| PLXNA1 | 0.18927004 | 0.18316 |
| PLXNA2 | 1.99891298 | 2.26871 |
| PLXNA3 | 2.48090179 | 2.552796 |
| PLXNA4 | 0.00818531 | 0.010848 |
| PLXNB1 | 0.06575777 | 0.129916 |
| PLXNB2 | 0.0630594 | 0.101799 |
| PLXNB3 | 0.12659679 | 0.081625 |
| PLXNC1 | 63.4989634 | 73.64731 |
| PLXND1 | 0.13862193 | 0.191711 |
| PM20D1 | 0.11740529 | 0.044458 |
| PM20D2 | 2.00964293 | 1.329205 |
| PMAIP1 | 3.37751959 | 1.714892 |

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|----------|------------|----------|
| PMCH | 0.05554909 | 0 |
| PMCHL1 | 0 | 0 |
| PMCHL2 | 0 | 0 |
| PMEPA1 | 1.53656005 | 4.034585 |
| PMF1 | 13.777227 | 12.62688 |
| PMFBP1 | 0.13005359 | 0.070354 |
| PML | 6.05477166 | 5.707144 |
| PMM1 | 7.65302382 | 6.404114 |
| PMM2 | 0.95034858 | 1.120739 |
| PMP2 | 0 | 0 |
| PMP22 | 29.7294795 | 27.09302 |
| PMPCA | 11.7559903 | 11.0928 |
| PMPCB | 10.1880846 | 9.733228 |
| PMS1 | 0.68671203 | 0.651227 |
| PMS2 | 5.38977983 | 5.002734 |
| PMS2CL | 0 | 0 |
| PMS2L1 | 0 | 0 |
| PMS2L11 | 0 | 0 |
| PMS2L12 | 0 | 0 |
| PMS2L2 | 0 | 0 |
| PMS2L3 | 4.27151193 | 4.88845 |
| PMS2L4 | 0 | 0 |
| PMS2L5 | 0.51350876 | 0.550946 |
| PMVK | 1.32723413 | 1.103238 |
| PNCK | 0.03253017 | 0 |
| PNKD | 1.37649068 | 1.467585 |
| PNKP | 18.3542808 | 16.78639 |
| PNLDC1 | 0.03285208 | 0.01244 |
| PNLIP | 0 | 0 |
| PNLIPRP1 | 0 | 0 |
| PNLIPRP2 | 0.01419671 | 0 |
| PNLIPRP3 | 0.00910582 | 0 |
| PNMA1 | 3.64343609 | 4.861971 |
| PNMA2 | 0 | 0 |
| PNMA3 | 0.13452624 | 0.089147 |
| PNMA5 | 0.02616718 | 0 |
| PNMA6A | 0.29600114 | 0.094574 |
| PNMAL1 | 0 | 0.012925 |
| PNMAL2 | 0.12022108 | 0.141631 |
| PNMT | 0.03634457 | 0.082576 |
| PNN | 44.0913901 | 41.24586 |
| PNO1 | 0.85036728 | 0.821126 |
| PNOC | 0.05273912 | 0 |
| PNPLA1 | 0.97077326 | 1.654221 |
| PNPLA10P | 0 | 0 |
| PNPLA2 | 136.78642 | 178.1239 |
| PNPLA3 | 0.02998265 | 0.034061 |

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| PNPLA4 | 0.57256158 | 0.444604 |
| PNPLA4P1 | 0 | 0 |
| PNPLA5 | 0 | 0.009539 |
| PNPLA6 | 162.689736 | 163.3771 |
| PNPLA7 | 0.12686945 | 0.094427 |
| PNPLA8 | 10.7032634 | 9.276625 |
| PNPO | 0.9162554 | 0.765151 |
| PNPT1 | 0.75762822 | 0.698975 |
| PNRC1 | 309.840238 | 327.7512 |
| PNRC2 | 60.6402905 | 60.36005 |
| PODN | 0.00698516 | 0 |
| PODNL1 | 0 | 0.022065 |
| PODXL | 0.79055807 | 0.977916 |
| PODXL2 | 0.36801593 | 0.429074 |
| POF1B | 0 | 0 |
| POFUT1 | 3.16665131 | 3.647978 |
| POFUT2 | 9.4380762 | 7.765261 |
| POGK | 15.5288335 | 16.7295 |
| POGZ | 14.432404 | 14.34002 |
| POL3S | 5.85764891 | 6.442384 |
| POLA1 | 1.44722818 | 1.196886 |
| POLA2 | 3.76028325 | 3.374965 |
| POLB | 15.3473226 | 14.30451 |
| POLD1 | 1.31141461 | 1.302698 |
| POLD2 | 0.7699417 | 0.941948 |
| POLD3 | 6.82250535 | 5.849415 |
| POLD4 | 110.257019 | 115.0544 |
| POLDIP2 | 8.64975932 | 8.113912 |
| POLDIP3 | 29.5089143 | 28.31446 |
| POLE | 3.79743222 | 3.820399 |
| POLE2 | 0.22393844 | 0.211998 |
| POLE3 | 27.7556618 | 29.89851 |
| POLE4 | 10.4522479 | 9.746223 |
| POLG | 21.4980228 | 20.68468 |
| POLG2 | 12.7030815 | 13.22076 |
| POLH | 2.33698103 | 2.447571 |
| POLI | 5.03941574 | 4.916595 |
| POLK | 2.3485742 | 1.916314 |
| POLL | 5.35647206 | 4.095355 |
| POLM | 17.8968002 | 19.00967 |
| POLN | 0.3843886 | 0.230694 |
| POLQ | 0.02634153 | 0.024484 |
| POLR1A | 0.44350555 | 0.2951 |
| POLR1B | 0.83961388 | 0.666787 |
| POLR1C | 0.99355282 | 0.746928 |
| POLR1D | 8.21823452 | 8.407179 |
| POLR1E | 0.48764252 | 0.283426 |

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| POLR2A | 55.1467862 | 61.91119 |
| POLR2B | 35.7004286 | 33.09375 |
| POLR2C | 21.5614536 | 21.01201 |
| POLR2CP | 0 | 0 |
| POLR2D | 6.22168933 | 6.256358 |
| POLR2E | 29.4912179 | 33.42749 |
| POLR2F | 6.38161806 | 5.499711 |
| POLR2G | 49.1847049 | 44.20315 |
| POLR2H | 2.86825465 | 2.356509 |
| POLR2I | 4.31597964 | 3.643027 |
| POLR2J | 36.8642702 | 38.40686 |
| POLR2J2 | 4.96806245 | 3.762532 |
| POLR2J3 | 2.99110363 | 4.620631 |
| POLR2J4 | 0 | 0 |
| POLR2K | 17.4525404 | 19.30979 |
| POLR2L | 23.0654601 | 26.44812 |
| POLR3A | 1.49939961 | 1.392482 |
| POLR3B | 1.0963671 | 0.668036 |
| POLR3C | 12.8582791 | 10.24569 |
| POLR3D | 1.15535774 | 1.015334 |
| POLR3E | 4.2163528 | 3.489351 |
| POLR3F | 4.6365052 | 4.191537 |
| POLR3G | 0.18561175 | 0.210858 |
| POLR3GL | 27.8292363 | 22.65497 |
| POLR3H | 1.02940923 | 0.726218 |
| POLR3K | 15.2671373 | 20.1043 |
| POLRMT | 3.12060175 | 3.941043 |
| POLRMTL | 0 | 0 |
| POLS | 11.8005419 | 14.59955 |
| POM121 | 19.0865269 | 18.52022 |
| POM121B | 0 | 0 |
| POM121C | 37.3277622 | 35.23084 |
| POM121L10P | 0 | 0 |
| POM121L11P | 0 | 0 |
| POM121L1P | 0 | 0 |
| POM121L2 | 0 | 0 |
| POM121L3P | 0 | 0 |
| POM121L4P | 0 | 0 |
| POM121L6P | 0 | 0 |
| POM121L7 | 0 | 0 |
| POM121L8P | 0 | 0 |
| POM121L9P | 0 | 0 |
| POMC | 0.2110651 | 0.239773 |
| POMGNT1 | 1.70600273 | 1.702338 |
| POMP | 12.5657999 | 12.06531 |
| POMT1 | 9.41979535 | 10.89855 |
| POMT2 | 1.389035 | 1.401547 |

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| POMZP3 | 3.0481311 | 2.83174 |
| PON1 | 0 | 0 |
| PON2 | 0 | 0.086645 |
| PON3 | 0.01765351 | 0 |
| POP1 | 0.66798553 | 0.76621 |
| POP4 | 13.2262235 | 13.624 |
| POP5 | 0.65622132 | 1.01385 |
| POP7 | 4.96306096 | 5.151188 |
| POPDC2 | 1.98231527 | 1.380222 |
| POPDC3 | 0 | 0 |
| POR | 85.43907 | 87.86547 |
| PORCN | 7.94315107 | 7.27214 |
| POSTN | 0.00622051 | 0 |
| POT1 | 1.81306137 | 1.439426 |
| POTEA | 0 | 0 |
| POTEB | 0.01040343 | 0.011818 |
| POTEC | 0.00937375 | 0 |
| POTED | 0 | 0 |
| POTEE | 0.01833604 | 0.069433 |
| POTEF | 0.74845751 | 0.880198 |
| POTEG | 0 | 0 |
| POTEH | 0 | 0 |
| POU1F1 | 0.03138109 | 0 |
| POU2AF1 | 0.13175504 | 0.10241 |
| POU2F1 | 2.83830239 | 2.353869 |
| POU2F2 | 1.22061527 | 1.174938 |
| POU2F3 | 0 | 0.008056 |
| POU3F1 | 0.08616939 | 0.057102 |
| POU3F2 | 0.01028888 | 0.011688 |
| POU3F3 | 0 | 0.031783 |
| POU3F4 | 0 | 0 |
| POU4F1 | 0.03305004 | 0.02503 |
| POU4F2 | 0.01338767 | 0.007604 |
| POU4F3 | 0.06202163 | 0 |
| POU5F1 | 0.03932419 | 0.119128 |
| POU5F1B | 0.11834145 | 0 |
| POU5F1P2 | 0 | 0 |
| POU5F1P3 | 0 | 0 |
| POU5F1P4 | 0 | 0 |
| POU5F1P5 | 0 | 0 |
| POU5F1P6 | 0 | 0 |
| POU5F1P7 | 0 | 0 |
| POU5F2 | 0 | 0 |
| POU6F1 | 0.84566664 | 0.798034 |
| POU6F2 | 0.00945809 | 0.010745 |
| PP14571 | 0 | 0 |
| PP1P | 0 | 0 |

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|-------------|------------|----------|
| PP2672 | 0 | 0 |
| PP8961 | 0 | 0 |
| PPA1 | 1.32417599 | 1.651044 |
| PPA2 | 5.17778623 | 4.497196 |
| PPAN | 0.21506055 | 0.201198 |
| PPAN-P2RY11 | 0.43196697 | 0.610898 |
| PPAP2A | 0.75681731 | 0.429878 |
| PPAP2B | 0.01276584 | 0 |
| PPAP2C | 0.02750207 | 0.062486 |
| PPAPDC1A | 0.01382336 | 0.031407 |
| PPAPDC1B | 9.82462193 | 13.77847 |
| PPAPDC2 | 0.11361206 | 0.112932 |
| PPAPDC3 | 0.01003596 | 0.034203 |
| PPARA | 17.3868544 | 16.54535 |
| PPARD | 12.5978023 | 15.12925 |
| PPARG | 0 | 0.010555 |
| PPARGC1A | 0 | 0 |
| PPARGC1B | 0.01284382 | 0.014591 |
| PPAT | 0.19644596 | 0.140276 |
| PPBP | 0.20995338 | 0.102219 |
| PPBPL1 | 0 | 0 |
| PPBPL2 | 0 | 0 |
| PPCDC | 43.3298055 | 29.20248 |
| PPCS | 33.2253887 | 30.12507 |
| PPEF1 | 0.029273 | 0.024941 |
| PPEF2 | 0.06774418 | 0.048974 |
| PPFIA1 | 8.34017749 | 8.185396 |
| PPFIA2 | 0 | 0 |
| PPFIA3 | 0.00890715 | 0.005059 |
| PPFIA4 | 0.50427454 | 0.340878 |
| PPFIBP1 | 0.02374211 | 0.019265 |
| PPFIBP2 | 9.58273298 | 12.74409 |
| PPHLN1 | 12.7390119 | 12.06498 |
| PPIA | 36.9051833 | 34.13808 |
| PPIAL | 0 | 0 |
| PPIAL3 | 0 | 0 |
| PPIAL4A | 0 | 0 |
| PPIAL4B | 0.00545546 | 0.018592 |
| PPIAL4C | 0 | 0.006197 |
| PPIAL4D | 0 | 0 |
| PPIAL4E | 0.02678386 | 0.030427 |
| PPIAL4F | 0 | 0 |
| PPIAL4G | 0 | 0.064729 |
| PPIAP | 0 | 0 |
| PPIAP10 | 0 | 0 |
| PPIAP11 | 0 | 0 |
| PPIAP13 | 0 | 0 |

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|---------|------------|----------|
| PPIAP14 | 0 | 0 |
| PPIAP15 | 0 | 0 |
| PPIAP16 | 0 | 0 |
| PPIAP17 | 0 | 0 |
| PPIAP18 | 0 | 0 |
| PPIAP19 | 0 | 0 |
| PPIAP2 | 0 | 0 |
| PPIAP3 | 0 | 0 |
| PPIAP4 | 0 | 0 |
| PPIAP5 | 0 | 0 |
| PPIAP6 | 0 | 0 |
| PPIAP7 | 0 | 0 |
| PPIAP8 | 0 | 0 |
| PPIAP9 | 0 | 0 |
| PPIB | 72.6887415 | 78.92774 |
| PPIC | 0 | 0 |
| PPID | 11.37248 | 9.949958 |
| PPIE | 3.04495291 | 2.723466 |
| PPIF | 51.870762 | 88.07431 |
| PPIG | 29.7276113 | 28.77511 |
| PPIH | 7.83193578 | 7.075964 |
| PPIHP1 | 0 | 0 |
| PPIHP2 | 0 | 0 |
| PPIL1 | 1.27096128 | 0.921302 |
| PPIL1P1 | 0 | 0 |
| PPIL2 | 12.1169874 | 11.4942 |
| PPIL3 | 4.65183913 | 4.90809 |
| PPIL4 | 9.90329736 | 9.981981 |
| PPIL5 | 5.81961883 | 6.227923 |
| PPIL6 | 0.08758122 | 0.218886 |
| PPL | 0.13482097 | 0.325462 |
| PPM1A | 12.2173474 | 13.66986 |
| PPM1B | 15.6674499 | 14.30909 |
| PPM1D | 9.02699951 | 9.310888 |
| PPM1E | 0.00642976 | 0.010956 |
| PPM1F | 52.6429224 | 54.62368 |
| PPM1G | 24.8421798 | 23.30203 |
| PPM1H | 1.31556659 | 1.055398 |
| PPM1J | 0.03680046 | 0.013935 |
| PPM1K | 3.18343266 | 4.039629 |
| PPM1L | 1.83008444 | 1.672583 |
| PPM1M | 16.8449159 | 24.65522 |
| PPM2C | 4.50650104 | 4.044371 |
| PPME1 | 3.20565584 | 2.814022 |
| PPOX | 2.92547026 | 2.012942 |
| PPP1CA | 117.101161 | 121.9046 |
| PPP1CB | 49.6143964 | 50.10712 |

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| PPP1CC | 36.0893921 | 39.79569 |
| PPP1R10 | 14.167323 | 12.75916 |
| PPP1R11 | 36.4026313 | 34.80853 |
| PPP1R11P2 | 0 | 0 |
| PPP1R12A | 31.7042465 | 27.97178 |
| PPP1R12B | 1.7506054 | 1.504364 |
| PPP1R12BP1 | 0 | 0 |
| PPP1R12BP2 | 0 | 0 |
| PPP1R12C | 64.5788295 | 67.99578 |
| PPP1R13B | 3.47242308 | 4.700921 |
| PPP1R13L | 0.0330795 | 0.067642 |
| PPP1R14A | 0 | 0 |
| PPP1R14B | 5.53858769 | 7.598708 |
| PPP1R14BP1 | 0 | 0 |
| PPP1R14C | 0.02852826 | 0.010803 |
| PPP1R14D | 0.048168 | 0.109439 |
| PPP1R15A | 32.6276433 | 25.50886 |
| PPP1R15B | 30.9739994 | 31.4559 |
| PPP1R16A | 1.28518954 | 1.165896 |
| PPP1R16B | 50.0760082 | 53.11199 |
| PPP1R1A | 0.03439258 | 0.026047 |
| PPP1R1B | 0.08209012 | 0.373023 |
| PPP1R1C | 0.02073504 | 0 |
| PPP1R2 | 25.5372566 | 28.58359 |
| PPP1R2P1 | 0 | 0 |
| PPP1R2P2 | 0 | 0 |
| PPP1R2P3 | 0 | 0 |
| PPP1R2P4 | 0 | 0 |
| PPP1R2P9 | 0 | 0 |
| PPP1R3A | 0 | 0.00556 |
| PPP1R3B | 19.9479812 | 24.51208 |
| PPP1R3C | 0 | 0 |
| PPP1R3D | 20.3944497 | 25.42875 |
| PPP1R3E | 0 | 0 |
| PPP1R3F | 0.70060606 | 0.698443 |
| PPP1R3G | 0.01211137 | 0 |
| PPP1R7 | 17.4804569 | 17.45663 |
| PPP1R8 | 11.0399817 | 9.652609 |
| PPP1R8P | 0 | 0 |
| PPP1R9A | 0.11932651 | 0.130627 |
| PPP1R9B | 78.0124462 | 81.77124 |
| PPP2CA | 29.2429499 | 27.44573 |
| PPP2CB | 4.9948502 | 5.140755 |
| PPP2CBP | 0 | 0 |
| PPP2R1A | 28.4899455 | 27.27708 |
| PPP2R1B | 2.59373234 | 2.552297 |
| PPP2R2A | 21.2388764 | 20.96391 |

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|----------------|------------|----------|
| PPP2R2B | 0 | 0 |
| PPP2R2C | 0 | 0.00527 |
| PPP2R2D | 22.5217958 | 23.29011 |
| PPP2R3A | 0.22178004 | 0.165754 |
| PPP2R3B (NC_00 | 1.46843581 | 2.303207 |
| PPP2R3B (NC_00 | 8.26799907 | 7.23642 |
| PPP2R3C | 20.4635855 | 20.86366 |
| PPP2R4 | 9.0659017 | 8.225992 |
| PPP2R5A | 26.0934574 | 23.54913 |
| PPP2R5B | 17.0452591 | 14.32225 |
| PPP2R5C | 21.3629154 | 20.8171 |
| PPP2R5CP | 0 | 0 |
| PPP2R5D | 10.6943483 | 10.31973 |
| PPP2R5E | 6.79606657 | 6.414777 |
| PPP3CA | 20.9039272 | 22.68983 |
| PPP3CB | 10.9198227 | 10.81275 |
| PPP3CC | 6.41613572 | 5.444801 |
| PPP3R1 | 64.6750632 | 66.16596 |
| PPP3R2 | 0 | 0 |
| PPP4C | 84.8443243 | 93.76252 |
| PPP4R1 | 16.9485585 | 15.26696 |
| PPP4R1L | 0 | 0 |
| PPP4R2 | 23.2256563 | 21.15678 |
| PPP4R4 | 0.00486472 | 0.049738 |
| PPP5C | 1.4785029 | 1.413183 |
| PPP6C | 16.6752625 | 15.89046 |
| PPP6CP | 0 | 0 |
| PPPDE1 | 7.23275495 | 7.632964 |
| PPPDE2 | 15.6067222 | 12.79216 |
| PPRC1 | 1.54401082 | 1.378159 |
| PPT1 | 49.5153261 | 47.86561 |
| PPT2 | 0.11806881 | 0.072223 |
| PPTC7 | 9.61510599 | 8.679701 |
| PPWD1 | 25.5250324 | 24.15834 |
| PPY | 0 | 0 |
| PPY2 | 0 | 0 |
| PPYR1 | 0.01074915 | 0 |
| PQBP1 | 19.9033295 | 17.1426 |
| PQLC1 | 21.0167176 | 22.62285 |
| PQLC2 | 3.39388934 | 3.442422 |
| PQLC3 | 5.31512841 | 3.633529 |
| PRAC | 0 | 0 |
| PRAF2 | 7.50785769 | 7.659121 |
| PRAGMIN | 6.4207462 | 5.167278 |
| PRAM1 | 3.56740474 | 3.522584 |
| PRAME | 0 | 0 |
| PRAMEF1 | 0 | 0 |

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| PRAMEF10 | 0 | 0 |
| PRAMEF11 | 0 | 0 |
| PRAMEF12 | 0 | 0 |
| PRAMEF13 | 0 | 0 |
| PRAMEF14 | 0 | 0 |
| PRAMEF15 | 0 | 0 |
| PRAMEF16 | 0 | 0 |
| PRAMEF17 | 0 | 0 |
| PRAMEF18 | 0 | 0 |
| PRAMEF19 | 0 | 0 |
| PRAMEF2 | 0 | 0 |
| PRAMEF20 | 0 | 0 |
| PRAMEF21 | 0 | 0 |
| PRAMEF22 | 0 | 0 |
| PRAMEF23 | 0 | 0 |
| PRAMEF25 | 0 | 0 |
| PRAMEF3 | 0 | 0 |
| PRAMEF4 | 0 | 0 |
| PRAMEF5 | 0 | 0 |
| PRAMEF6 | 0 | 0 |
| PRAMEF7 | 0 | 0 |
| PRAMEF8 | 0 | 0 |
| PRAMEF9 | 0 | 0 |
| PRAMEL | 0 | 0 |
| PRAP1 | 0.02705963 | 0.06148 |
| PRB1 | 0 | 0 |
| PRB2 | 0 | 0 |
| PRB3 | 0 | 0.021893 |
| PRB4 | 0 | 0 |
| PRC1 | 1.78982098 | 2.539663 |
| PRCC | 22.4019306 | 21.31996 |
| PRCD | 0.08975595 | 0.025491 |
| PRCP | 14.8587901 | 12.13745 |
| PRDM1 | 14.6426412 | 9.132014 |
| PRDM10 | 6.00632363 | 5.311839 |
| PRDM11 | 0.47163147 | 0.600075 |
| PRDM12 | 0.01687426 | 0.038339 |
| PRDM13 | 0.01312443 | 0.007455 |
| PRDM14 | 0.00951803 | 0.010813 |
| PRDM15 | 1.44016646 | 1.333195 |
| PRDM16 | 0.00964686 | 0.005479 |
| PRDM2 | 12.1000418 | 12.17061 |
| PRDM4 | 8.71745272 | 7.718307 |
| PRDM5 | 1.81428259 | 1.23278 |
| PRDM6 | 0 | 0.007891 |
| PRDM7 | 0.01880059 | 0.007119 |
| PRDM8 | 0.60784132 | 0.605618 |

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| PRDM9 | 0 | 0 |
| PRDX1 | 13.3239942 | 12.15547 |
| PRDX2 | 3.14337519 | 2.987916 |
| PRDX2P1 | 0 | 0 |
| PRDX3 | 10.5192731 | 7.656446 |
| PRDX4 | 0.43374733 | 0.259339 |
| PRDX5 | 57.0585622 | 76.19458 |
| PRDX6 | 16.9209849 | 20.10926 |
| PREB | 26.9881731 | 26.90798 |
| PRELID1 | 108.216019 | 130.3152 |
| PRELID2 | 0.00885277 | 0.030171 |
| PRELP | 0.0252882 | 0.012312 |
| PREP | 4.69361548 | 6.178773 |
| PREPL | 2.56481074 | 1.856407 |
| PREX1 | 170.244004 | 198.0559 |
| PREX2 | 0 | 0 |
| PRF1 | 0.14935121 | 0.188517 |
| PRG1 | 0 | 0 |
| PRG2 (NC_00001 | 1.20214844 | 1.059083 |
| PRG2 (NC_00001 | 0.06244265 | 0.060802 |
| PRG3 | 0.04838971 | 0.082457 |
| PRG-3 | 0.007857 | 0 |
| PRG4 | 0.05002061 | 0.037883 |
| PRH1 | 0.12234191 | 0.119128 |
| PRH2 | 0 | 0.005525 |
| PRHOXNB | 0 | 0 |
| PRIC285 | 28.9090517 | 34.09329 |
| PRICKLE1 | 0.09202417 | 0.069694 |
| PRICKLE2 | 0.00505295 | 0.00574 |
| PRICKLE3 | 6.95209436 | 7.99371 |
| PRICKLE4 | 1.32845348 | 1.131858 |
| PRIM1 | 1.55317082 | 1.454018 |
| PRIM2 | 1.00950956 | 0.625538 |
| PRIMA1 | 0.01152073 | 0 |
| PRINS | 0 | 0 |
| PRKAA1 | 12.951276 | 12.14276 |
| PRKAA2 | 0 | 0.002554 |
| PRKAB1 | 49.9844186 | 66.80071 |
| PRKAB2 | 9.871011 | 9.095104 |
| PRKACA | 10.44713 | 11.52651 |
| PRKACB | 1.8967405 | 1.311573 |
| PRKACG | 0.0527281 | 0.02995 |
| PRKAG1 | 22.8126652 | 24.33784 |
| PRKAG2 | 4.11112772 | 4.544406 |
| PRKAG3 | 0 | 0.010389 |
| PRKAR1A | 153.498658 | 146.7264 |
| PRKAR1AP | 0 | 0 |

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| PRKAR1B | 0.21776625 | 0.222647 |
| PRKAR2A | 8.0533817 | 9.058485 |
| PRKAR2B | 0.03445834 | 0.032621 |
| PRKCA | 2.26315991 | 2.056244 |
| PRKCB | 29.2161325 | 27.72687 |
| PRKCD | 51.7141562 | 58.53747 |
| PRKCDBP | 0 | 0.046066 |
| PRKCE | 10.1393897 | 9.995399 |
| PRKCG | 0.41674249 | 0.473426 |
| PRKCH | 3.90401895 | 2.902184 |
| PRKCI | 7.29256975 | 9.609795 |
| PRKCQ | 0.0657247 | 0.067198 |
| PRKCSH | 40.116663 | 40.16423 |
| PRKCZ | 63.9881711 | 65.09527 |
| PRKD1 | 0.00571496 | 0.006492 |
| PRKD2 | 37.0196006 | 40.93981 |
| PRKD3 | 8.6373755 | 14.03245 |
| PRKDC | 3.33559996 | 3.407359 |
| PRKG1 | 0 | 0.005617 |
| PRKG2 | 0 | 0.014354 |
| PRKRA | 4.18183378 | 3.606959 |
| PRKRIP1 | 8.8304462 | 9.067799 |
| PRKRIR | 7.47420856 | 6.955883 |
| PRKX | 7.21604111 | 5.252906 |
| PRKXP1 | 0 | 0 |
| PRKY | 0 | 0 |
| PRL | 0.03105662 | 0 |
| PRLH | 0 | 0 |
| PRLHR | 0 | 0 |
| PRLR | 0.00178362 | 0.002026 |
| PRM1 | 0 | 0 |
| PRM2 | 0 | 0 |
| PRM3 | 0 | 0.076555 |
| PRMT1 | 6.96579592 | 6.928135 |
| PRMT2 | 28.7408765 | 22.76549 |
| PRMT3 | 1.45506684 | 1.381855 |
| PRMT5 | 0.6299087 | 0.609215 |
| PRMT6 | 0.55373976 | 0.419371 |
| PRMT7 | 2.19050519 | 2.128673 |
| PRMT8 | 0.00897368 | 0.010194 |
| PRND | 0 | 0.012003 |
| PRNP | 9.38478841 | 11.64439 |
| PRNT | 0 | 0 |
| PRO0611 | 0 | 0 |
| PRO0628 | 0 | 0 |
| PRO1768 | 0 | 0 |
| PROC | 1.26990603 | 2.749169 |

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| PROCA1 | 4.90647258 | 4.443741 |
| PROCR | 0.02900046 | 0.082362 |
| PRODH | 0.10460364 | 0.064817 |
| PRODH2 | 0.01253747 | 0 |
| PROK1 | 0.01532459 | 0.017409 |
| PROK2 | 0.69085092 | 0.444236 |
| PROKR1 | 0 | 0.060622 |
| PROKR2 | 0.01820375 | 0 |
| PROL1 | 0 | 0 |
| PROM1 | 0 | 0.006295 |
| PROM2 | 0.02750567 | 0.012499 |
| PROP1 | 0.01436156 | 0.016315 |
| PROS1 | 0.03523798 | 0.033359 |
| ProSAPiP1 | 0.82145852 | 0.874012 |
| PROSC | 16.1557039 | 14.99676 |
| PROSP | 0 | 0 |
| PROX1 | 0.36922532 | 0.271863 |
| PROX2 | 0.60274979 | 0.845847 |
| PROZ | 0.02831694 | 0 |
| PRPF18 | 6.20278092 | 5.057199 |
| PRPF19 | 6.63721469 | 6.448265 |
| PRPF3 | 22.3143383 | 21.26677 |
| PRPF31 | 7.31985869 | 6.346021 |
| PRPF38A | 25.2880424 | 27.40928 |
| PRPF38B | 46.9013521 | 46.99682 |
| PRPF39 | 9.78689569 | 8.702908 |
| PRPF4 | 7.07250621 | 6.995237 |
| PRPF40A | 18.3496844 | 17.08255 |
| PRPF40B | 1.3449402 | 2.971939 |
| PRPF4B | 16.7736167 | 15.03593 |
| PRPF6 | 26.3545506 | 25.24843 |
| PRPF8 | 54.1816582 | 51.23757 |
| PRPH | 0 | 0 |
| PRPH2 | 0.02778372 | 0.063125 |
| PRPS1 | 9.71300076 | 8.663337 |
| PRPS1L1 | 0 | 0.021913 |
| PRPS2 | 4.12490607 | 4.809273 |
| PRPSAP1 | 5.07139183 | 4.809422 |
| PRPSAP2 | 5.84036971 | 4.764384 |
| PRR10 | 0 | 0 |
| PRR11 | 1.10155493 | 0.707304 |
| PRR12 | 10.3445961 | 12.34677 |
| PRR13 | 166.232073 | 154.5237 |
| PRR14 | 36.3426519 | 36.51557 |
| PRR15 | 0.01252999 | 0.014234 |
| PRR16 | 0 | 0 |
| PRR17 | 0.08605183 | 0.032585 |

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| PRR18 | 0.02332692 | 0.017667 |
| PRR19 | 0.01374205 | 0.046834 |
| PRR20 | 0.0113835 | 0 |
| PRR21 | 0 | 0 |
| PRR3 | 3.01207663 | 3.043439 |
| PRR4 | 1.39745402 | 1.491316 |
| PRR5 | 0.01752841 | 0.009956 |
| PRR7 | 6.837506 | 9.563753 |
| PRRC1 | 3.49600472 | 3.284139 |
| PRRG1 | 0 | 0.005211 |
| PRRG2 | 0.06037425 | 0.05144 |
| PRRG3 | 0 | 0 |
| PRRG4 | 0.02118421 | 0.048131 |
| PRRT1 | 0.01108931 | 0.012598 |
| PRRT2 | 0.04095312 | 0.037219 |
| PRRT3 | 0.49195138 | 0.381044 |
| PRRX1 | 0.00516466 | 0 |
| PRRX2 | 0 | 0 |
| PRSS1 | 0 | 0 |
| PRSS12 | 0 | 0 |
| PRSS16 | 0 | 0.008814 |
| PRSS21 | 26.0605819 | 23.49557 |
| PRSS22 | 0.01516979 | 0 |
| PRSS23 | 0.00552426 | 0 |
| PRSS27 | 0.34514907 | 0.277734 |
| PRSS29P | 0 | 0 |
| PRSS3 | 0.0206333 | 0 |
| PRSS33 | 455.656405 | 425.3636 |
| PRSS35 | 0.00866667 | 0 |
| PRSS36 | 1.74840666 | 1.843143 |
| PRSS7 | 0.00533097 | 0 |
| PRSS8 | 0.31429618 | 0.590972 |
| PRSSL1 | 0.01996708 | 0.022683 |
| PRTFDC1 | 0.01091658 | 0 |
| PRTG | 0.00175606 | 0.001995 |
| PRTN3 | 0 | 0 |
| PRUNE | 5.79132395 | 4.974393 |
| PRUNE2 | 0.11360528 | 0.074018 |
| PRX | 0.21002419 | 0.173521 |
| PRY | 0.0169833 | 0 |
| PRY2 | 0 | 0 |
| PRYP1 | 0 | 0 |
| PRYP2 | 0 | 0 |
| PRYP3 | 0 | 0 |
| PRYP4 | 0 | 0 |
| PS10 | 0 | 0 |
| PS3 | 0 | 0 |

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| PS5 | 0 | 0 |
| PS8 | 0 | 0 |
| PS9 | 0 | 0 |
| PSAP | 234.865795 | 226.2125 |
| PSAPL1 | 0 | 0 |
| PSAT1 | 0 | 0 |
| PSCA | 0 | 0 |
| PSD | 0.01507913 | 0.03426 |
| PSD2 | 0 | 0.010592 |
| PSD3 | 0.00533277 | 0.002019 |
| PSD4 | 83.4712732 | 98.92957 |
| PSEN1 | 28.068299 | 29.74853 |
| PSEN2 | 5.5994354 | 5.352842 |
| PSENEEN | 22.5745659 | 18.78483 |
| PSG1 | 0 | 0 |
| PSG10 | 0 | 0 |
| PSG11 | 0 | 0 |
| PSG2 | 0 | 0 |
| PSG3 | 0 | 0 |
| PSG4 | 0 | 0 |
| PSG5 | 0 | 0 |
| PSG6 | 0 | 0 |
| PSG7 | 0 | 0 |
| PSG8 | 0.00986642 | 0 |
| PSG9 | 0 | 0 |
| PSIMCT-1 | 0 | 0 |
| PSIP1 | 24.4122456 | 20.8371 |
| PSIP1P | 0 | 0 |
| PSIP1P2 | 0 | 0 |
| psiTPTE22 | 0 | 0 |
| PSKH1 | 5.50246381 | 4.617834 |
| PSKH2 | 0.01815659 | 0 |
| PSMA1 | 20.7493543 | 18.76438 |
| PSMA2 | 27.5079023 | 23.6896 |
| PSMA3 | 29.7575342 | 28.93525 |
| PSMA3P | 0 | 0 |
| PSMA4 | 43.5844771 | 41.8381 |
| PSMA5 | 29.9621759 | 31.68333 |
| PSMA6 | 30.6292395 | 30.64239 |
| PSMA6P1 | 0 | 0 |
| PSMA7 | 66.4092771 | 68.69396 |
| PSMA7P | 0 | 0 |
| PSMA8 | 0 | 0 |
| psMAGEA | 0 | 0 |
| PSMB1 | 46.2924135 | 44.95714 |
| PSMB10 | 70.8933785 | 72.14328 |
| PSMB11 | 0 | 0 |

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| PSMB2 | 20.5028079 | 21.115 |
| PSMB3 | 44.9228225 | 44.7925 |
| PSMB3P | 0 | 0 |
| PSMB3P2 | 0 | 0 |
| PSMB4 | 90.1475271 | 85.05681 |
| PSMB5 | 4.32364096 | 4.106793 |
| PSMB6 | 18.6580721 | 17.55237 |
| PSMB7 | 38.8028466 | 40.65809 |
| PSMB8 | 68.9578678 | 60.09671 |
| PSMB9 | 51.118839 | 45.90135 |
| PSMC1 | 57.40207 | 59.26097 |
| PSMC1P | 0 | 0 |
| PSMC2 | 24.7154349 | 21.16343 |
| PSMC3 | 10.6457372 | 9.523809 |
| PSMC3IP | 4.02183214 | 4.79819 |
| PSMC3P | 0 | 0 |
| PSMC4 | 21.6114029 | 19.62407 |
| PSMC5 | 30.0248097 | 25.74887 |
| PSMC6 | 18.1612401 | 16.913 |
| PSMC6P1 | 0 | 0 |
| PSMC6P2 | 0 | 0 |
| PSMC6P3 | 0 | 0 |
| PSMD1 | 11.6821873 | 11.6946 |
| PSMD10 | 13.9534215 | 12.94678 |
| PSMD10P1 | 0 | 0 |
| PSMD10P2 | 0 | 0 |
| PSMD10P3 | 0 | 0 |
| PSMD11 | 16.4372606 | 16.18024 |
| PSMD12 | 11.1971295 | 11.57703 |
| PSMD12P | 0 | 0 |
| PSMD13 | 28.9811701 | 27.78816 |
| PSMD14 | 3.54304411 | 3.955318 |
| PSMD15 | 0 | 0 |
| PSMD2 | 40.6907073 | 40.02922 |
| PSMD2P1 | 0 | 0 |
| PSMD3 | 19.8208057 | 19.80228 |
| PSMD4 | 51.8845817 | 46.65845 |
| PSMD5 | 4.87921764 | 4.139521 |
| PSMD6 | 25.7672825 | 22.46077 |
| PSMD7 | 40.8868049 | 40.29714 |
| PSMD7L | 0 | 0 |
| PSMD8 | 22.3914993 | 20.90529 |
| PSMD9 | 3.83176113 | 3.425265 |
| PSME1 | 66.3106592 | 63.50989 |
| PSME2 | 24.9311222 | 20.60055 |
| PSME2P1 | 0 | 0 |
| PSME2P2 | 0 | 0 |

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| PSME2P3 | 0 | 0 |
| PSME2P4 | 0 | 0 |
| PSME2P5 | 0 | 0 |
| PSME2P6 | 0 | 0 |
| PSME3 | 20.671854 | 20.43471 |
| PSME4 | 20.5692243 | 18.05094 |
| PSMF1 | 18.67763 | 17.77395 |
| PSMG1 | 1.47775903 | 1.615007 |
| PSMG2 | 18.2340024 | 18.31876 |
| PSMG3 | 6.26444751 | 5.967051 |
| PSMG4 | 0.94835946 | 0.733516 |
| PSORS1C1 | 0 | 0 |
| PSORS1C2 | 0 | 0 |
| PSORS1C3 | 0 | 0 |
| PSPC1 | 14.8276414 | 14.40506 |
| PSPH | 0.4566408 | 0.327039 |
| PSPHL | 0 | 0 |
| PSPN | 0.04463977 | 0.152134 |
| PSRC1 | 1.35834551 | 2.097036 |
| PSTK | 0.69056806 | 0.476301 |
| PSTPIP1 | 56.4566973 | 61.48323 |
| PSTPIP2 | 54.3084855 | 35.60651 |
| PTAFR | 106.85761 | 81.43485 |
| PTAR1 | 10.5827429 | 9.524576 |
| PTBP1 | 46.7991442 | 44.28318 |
| PTBP1P | 0 | 0 |
| PTBP2 | 4.57780442 | 4.179552 |
| PTCD1 | 1.07892247 | 1.101554 |
| PTCD2 | 0.17996004 | 0.124934 |
| PTCD3 | 4.5023058 | 3.788134 |
| PTCH1 | 0.00700922 | 0.002654 |
| PTCH2 | 0.02320677 | 0.006591 |
| PTCHD1 | 0.00397379 | 0.004514 |
| PTCHD2 | 0.01209743 | 0.009162 |
| PTCHD3 | 0.00831698 | 0 |
| PTCRA | 0.01941397 | 0.022055 |
| PTDSS1 | 31.1853351 | 29.13144 |
| PTDSS2 | 1.66826757 | 1.592341 |
| PTEN | 19.5771383 | 15.14245 |
| PTENP1 | 0 | 0 |
| PTER | 1.41725501 | 1.147374 |
| PTF1A | 0 | 0 |
| PTGDR | 0.03573306 | 0.016237 |
| PTGDS | 0 | 0.05883 |
| PTGER1 | 0 | 0.016809 |
| PTGER2 | 3.71334474 | 2.802648 |
| PTGER3 | 0.01022633 | 0.00697 |

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| PTGER4 | 43.7125001 | 19.4521 |
| PTGES | 1.01185141 | 1.48363 |
| PTGES2 | 6.30849666 | 8.981127 |
| PTGES3 | 46.8131847 | 54.73879 |
| PTGFR | 0 | 0.004398 |
| PTGFRN | 0.01706602 | 0.058162 |
| PTGIR | 0.02015851 | 0.0229 |
| PTGIS | 0.00750503 | 0.008526 |
| PTGR1 | 0 | 0.038462 |
| PTGR2 | 0.1988211 | 0.122343 |
| PTGS1 | 31.4657515 | 33.124 |
| PTGS2 | 0.35096813 | 0.132902 |
| PTH | 0 | 0 |
| PTH1R | 0 | 0.011224 |
| PTH2 | 0 | 0 |
| PTH2R | 0.05424892 | 0.008804 |
| PTHLH | 0 | 0 |
| PTK2 | 0.07424526 | 0.052715 |
| PTK2B | 91.2353933 | 95.98872 |
| PTK6 | 0.11685376 | 0.113784 |
| PTK7 | 0.0197932 | 0.022485 |
| PTMA | 559.816842 | 744.7883 |
| PTMAP1 | 0 | 0 |
| PTMAP2 | 0 | 0 |
| PTMAP3 | 0 | 0 |
| PTMAP4 | 0 | 0 |
| PTMAP5 | 0 | 0 |
| PTMAP6 | 0 | 0 |
| PTMAP7 | 0 | 0 |
| PTMS | 26.1079762 | 28.26751 |
| PTN | 0.01357349 | 0 |
| PTOV1 | 27.4757775 | 23.74565 |
| PTP4A1 | 7.59179109 | 8.450497 |
| PTP4A2 | 167.277065 | 164.3402 |
| PTP4A3 | 4.02511967 | 5.307802 |
| PTP4AP1 | 0 | 0 |
| PTP4AP2 | 0 | 0 |
| PTPDC1 | 0.26172611 | 0.391478 |
| PTPLA | 0.09652026 | 0.091374 |
| PTPLAD1 | 1.00276672 | 1.116822 |
| PTPLAD2 | 7.81025712 | 5.667653 |
| PTPLB | 3.84372099 | 3.561638 |
| PTPMT1 | 4.32784185 | 3.626352 |
| PTPN1 | 29.1743893 | 20.99125 |
| PTPN11 | 15.3297853 | 13.33962 |
| PTPN12 | 81.0148027 | 90.03462 |
| PTPN13 | 0.00245108 | 0 |

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| PTPN14 | 0.00514192 | 0.005841 |
| PTPN18 | 31.9706518 | 39.52859 |
| PTPN2 | 7.4359686 | 6.906132 |
| PTPN20A | 0 | 0.007727 |
| PTPN20B | 0.00680211 | 0.007727 |
| PTPN20C | 0 | 0 |
| PTPN21 | 0 | 0.007686 |
| PTPN22 | 56.2239877 | 36.55526 |
| PTPN23 | 7.90197694 | 6.902765 |
| PTPN3 | 0.00437845 | 0.002487 |
| PTPN4 | 1.58369853 | 1.478054 |
| PTPN5 | 0 | 0 |
| PTPN6 | 308.821907 | 317.7599 |
| PTPN7 | 87.1588675 | 114.8586 |
| PTPN9 | 6.17732553 | 6.186595 |
| PTPNS1L | 0 | 0 |
| PTPRA | 17.6083841 | 16.36806 |
| PTPRB | 0 | 0 |
| PTPRC | 222.449571 | 170.7303 |
| PTPRCAP | 43.1169962 | 67.09951 |
| PTPRD | 0.00625134 | 0.004734 |
| PTPRE | 80.6509936 | 41.09345 |
| PTPRF | 0.00271891 | 0.006177 |
| PTPRG | 0 | 0.003593 |
| PTPRH | 0.01619409 | 0.006132 |
| PTPRJ | 12.1763485 | 6.802838 |
| PTPRK | 0.00683084 | 0.00388 |
| PTPRM | 0.00375452 | 0.017061 |
| PTPRN | 0.00578891 | 0.013153 |
| PTPRN2 | 0.69256839 | 0.618529 |
| PTPRO | 0.00656836 | 0.011193 |
| PTPRQ | 0.00828312 | 0.00941 |
| PTPRR | 0.0055711 | 0 |
| PTPRS | 2.15776501 | 2.513024 |
| PTPRT | 0.00165632 | 0.003763 |
| PTPRU | 0.09366238 | 0.297925 |
| PTPRV | 0 | 0 |
| PTPRZ1 | 0.0051539 | 0.002927 |
| PTRF | 0 | 0 |
| PTRH1 | 0.72234266 | 0.527524 |
| PTRH2 | 1.18563896 | 1.167317 |
| PTS | 2.47356835 | 2.24801 |
| PTS-P1 | 0 | 0 |
| PTTG1 | 1.09260849 | 0.469651 |
| PTTG1IP | 36.6406352 | 44.81077 |
| PTTG2 | 0 | 0 |
| PTTG3 | 0 | 0 |

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| PTTG4P | 0 | 0 |
| PTX3 | 0.14103679 | 0.147895 |
| PUF60 | 19.8705719 | 19.03383 |
| PUM1 | 15.5903708 | 14.36655 |
| PUM2 | 34.0547743 | 34.41082 |
| PURA | 7.94683511 | 9.402363 |
| PURB | 10.6877027 | 11.4619 |
| PURG | 0.00557997 | 0.025356 |
| PUS1 | 1.25986757 | 1.26699 |
| PUS10 | 1.92042393 | 1.404269 |
| PUS3 | 0.82094568 | 0.984419 |
| PUS7 | 0.40433329 | 0.349639 |
| PUS7L | 2.40890357 | 1.873235 |
| PUSL1 | 4.44244896 | 5.258576 |
| PVALB | 0 | 0 |
| PVR | 0.02413534 | 0.007834 |
| PVRIG | 0.0402014 | 0 |
| PVRL1 | 1.21392572 | 1.234494 |
| PVRL2 | 4.88140551 | 5.598803 |
| PVRL3 | 0.06371312 | 0.072379 |
| PVRL4 | 0.02401523 | 0.00682 |
| PVT1 | 0 | 0 |
| PWP1 | 4.08479177 | 4.12479 |
| PWP2 | 2.57979521 | 2.469105 |
| PWRN1 | 0 | 0 |
| PWRN2 | 0 | 0 |
| PWWP2A | 3.70628345 | 3.403887 |
| PWWP2B | 5.59175787 | 8.141199 |
| PXDN | 0.00616488 | 0.007003 |
| PXDNL | 0.06560848 | 0.08447 |
| PXK | 55.7529126 | 61.81612 |
| PXMP2 | 0.7689515 | 0.823624 |
| PXMP3 | 12.7381144 | 13.00345 |
| PXMP4 | 2.77325732 | 1.815168 |
| PXN | 44.1085045 | 46.61906 |
| PXT1 | 0.01496465 | 0.017 |
| PYCARD | 27.7842831 | 32.87745 |
| PYCR1 | 0.04080608 | 0.011589 |
| PYCR2 | 19.3363499 | 20.00537 |
| PYCRL | 0.03955104 | 0.008986 |
| PYDC1 | 0 | 0 |
| PYDC2 | 0 | 0 |
| PYGB | 9.5583567 | 8.881028 |
| PYGL | 184.562287 | 102.7904 |
| PYGM | 1.35478488 | 1.809878 |
| PYGO1 | 0.01668677 | 0 |
| PYGO2 | 16.9987817 | 16.47171 |

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|-----------|------------|----------|
| PYHIN1 | 0.01009377 | 0.0688 |
| PYROXD1 | 2.29311656 | 2.21137 |
| PYROXD2 | 6.56911871 | 5.918226 |
| PYY | 0 | 0.045366 |
| PYY2 | 0 | 0 |
| PYY3 | 0 | 0 |
| PZP | 0.00912162 | 0 |
| QARS | 33.0781236 | 32.43657 |
| QDPR | 0.12719498 | 0.043349 |
| QKI | 16.8039484 | 16.44068 |
| QPCT | 2.79020834 | 5.231442 |
| QPCTL | 10.8212564 | 8.818638 |
| QPRT | 2.21746256 | 3.025959 |
| QRF | 0 | 0 |
| QRFPR | 0.00895839 | 0.010177 |
| QRICH1 | 33.8498315 | 30.86691 |
| QRICH2 | 0.10593095 | 0.102511 |
| QRSL1 | 0.76075141 | 0.539416 |
| QSER1 | 1.08630499 | 1.455624 |
| QSOX1 | 44.0542821 | 58.92765 |
| QSOX2 | 12.5084474 | 10.84584 |
| QTRT1 | 0.36250571 | 0.340193 |
| QTRTD1 | 1.90469715 | 1.428564 |
| R3HCC1 | 10.6189883 | 9.587259 |
| R3HDM1 | 1.72383282 | 1.449451 |
| R3HDM2 | 8.31172495 | 8.180079 |
| R3HDML | 0 | 0 |
| RAB10 | 12.6934044 | 11.83663 |
| RAB11A | 24.5310172 | 20.751 |
| RAB11B | 60.494614 | 61.69953 |
| RAB11FIP1 | 27.745067 | 18.92635 |
| RAB11FIP2 | 5.69255372 | 4.977214 |
| RAB11FIP3 | 1.01628736 | 1.11156 |
| RAB11FIP4 | 72.9365684 | 80.66105 |
| RAB11FIP5 | 0.11621556 | 0.198034 |
| RAB12 | 8.358995 | 7.473872 |
| RAB13 | 0.0728781 | 0 |
| RAB14 | 20.5048781 | 20.36503 |
| RAB15 | 0.56423035 | 0.387402 |
| RAB17 | 0 | 0.024298 |
| RAB18 | 13.6626971 | 12.0196 |
| RAB19 | 0.10578783 | 0.210309 |
| RAB1A | 29.1952193 | 28.14159 |
| RAB1B | 73.8306379 | 72.18068 |
| RAB1C | 0 | 0 |
| RAB20 | 1.40726205 | 1.440388 |
| RAB21 | 19.4086135 | 19.22992 |

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| RAB22A | 3.61156419 | 3.647235 |
| RAB23 | 0.18671401 | 0.333316 |
| RAB24 | 70.8365834 | 76.60423 |
| RAB25 | 0.21316004 | 0.154097 |
| RAB26 | 0 | 0 |
| RAB27A | 36.3947652 | 31.24942 |
| RAB27B | 0.1105765 | 0.053836 |
| RAB28 | 6.34499374 | 6.098034 |
| RAB2A | 40.7136853 | 46.10575 |
| RAB2B | 12.9000402 | 11.37732 |
| RAB30 | 0.23623967 | 0.089457 |
| RAB31 | 30.0587481 | 32.03619 |
| RAB32 | 7.67258545 | 7.485192 |
| RAB33A | 17.4388801 | 22.05277 |
| RAB33B | 3.71706549 | 3.339841 |
| RAB34 | 1.22903814 | 1.146884 |
| RAB35 | 32.5504347 | 36.17807 |
| RAB36 | 0.02200453 | 0.037496 |
| RAB37 | 130.59889 | 112.2345 |
| RAB38 | 0.29865527 | 0.152675 |
| RAB39 | 0.01179873 | 0.013404 |
| RAB39B | 0.70627727 | 0.480034 |
| RAB3A | 1.27468695 | 1.113896 |
| RAB3B | 0 | 0 |
| RAB3C | 0.4584314 | 0.213049 |
| RAB3D | 36.0753949 | 46.82956 |
| RAB3GAP1 | 19.1486982 | 17.92383 |
| RAB3GAP2 | 7.29532223 | 6.472346 |
| RAB3IL1 | 0.03682195 | 0.020915 |
| RAB3IP | 0.40477695 | 0.314497 |
| RAB40A | 0.0156206 | 0 |
| RAB40AL | 0.02043278 | 0 |
| RAB40B | 0.09562402 | 0.081473 |
| RAB40C | 26.7887831 | 33.26724 |
| RAB41 | 0.06135797 | 0.092938 |
| RAB42 | 0.1154181 | 0.174822 |
| RAB42P | 0 | 0 |
| RAB43 | 11.0256514 | 12.85295 |
| RAB43P | 0 | 0 |
| RAB4A | 28.1782786 | 25.66062 |
| RAB4B | 23.5520593 | 19.52712 |
| RAB5A | 23.2398333 | 24.42217 |
| RAB5B | 45.355007 | 40.03799 |
| RAB5C | 93.2376133 | 98.4789 |
| RAB6A | 25.9914734 | 24.65318 |
| RAB6B | 0 | 0.012885 |
| RAB6C | 0.02049919 | 0 |

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| RAB7A | 80.8137609 | 81.58605 |
| RAB7L1 | 27.0428842 | 32.66942 |
| RAB8A | 42.0796357 | 41.16533 |
| RAB8B | 15.5760756 | 13.74239 |
| RAB9A | 9.49154626 | 13.01418 |
| RAB9AP1 | 0 | 0 |
| RAB9AP2 | 0 | 0 |
| RAB9AP3 | 0 | 0 |
| RAB9AP5 | 0 | 0 |
| RAB9B | 0.08017285 | 0.068308 |
| RAB9P1 | 0 | 0 |
| RABAC1 | 32.1242046 | 30.8109 |
| RABEP1 | 13.9533157 | 13.4503 |
| RABEP2 | 4.80447256 | 4.724642 |
| RABEPK | 2.36223188 | 1.516779 |
| RABGAP1 | 4.81996985 | 4.405295 |
| RABGAP1L | 3.66514077 | 3.550294 |
| RABGEF1 | 13.1284153 | 12.91426 |
| RABGGTA | 7.60925588 | 5.361748 |
| RABGGTB | 31.7207032 | 34.83777 |
| RABIF | 7.73524522 | 6.762533 |
| RABL2A | 1.8409276 | 1.794135 |
| RABL2B | 0.56260442 | 0.712171 |
| RABL3 | 1.14791918 | 0.953436 |
| RABL4 | 2.01810229 | 1.637569 |
| RABL5 | 0.01710072 | 0.038853 |
| RAC1 | 36.7022666 | 53.68671 |
| RAC1P1 | 0 | 0 |
| RAC1P2 | 0 | 0 |
| RAC1P3 | 0 | 0 |
| RAC1P4 | 0 | 0 |
| RAC1P5 | 0 | 0 |
| RAC2 | 348.851489 | 347.5706 |
| RAC3 | 0.51571567 | 0.856259 |
| RACGAP1 | 1.75666974 | 1.795354 |
| RACGAP1P | 0 | 0 |
| RAD1 | 5.84560771 | 5.401309 |
| RAD17 | 5.35383638 | 4.719289 |
| RAD17P1 | 0 | 0 |
| RAD17P2 | 0 | 0 |
| RAD18 | 4.2589065 | 3.614916 |
| RAD21 | 68.4472641 | 69.57255 |
| RAD21L1 | 0 | 0 |
| RAD23A | 19.9699602 | 20.5681 |
| RAD23B | 13.7555555 | 13.71803 |
| RAD50 | 1.15354516 | 0.993008 |
| RAD51 | 0.23145455 | 0.178797 |

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| RAD51AP1 | 0.34285467 | 0.200008 |
| RAD51AP2 | 0 | 0 |
| RAD51C | 1.63546723 | 1.372515 |
| RAD51L1 | 0.26020049 | 0.212055 |
| RAD51L3 | 1.40006075 | 1.442539 |
| RAD52 | 0.74725269 | 0.562949 |
| RAD54B | 0.02765581 | 0.023563 |
| RAD54L | 0.04678236 | 0.106291 |
| RAD54L2 | 4.57691254 | 4.229286 |
| RAD9A | 7.35193005 | 6.787333 |
| RAD9B | 0.29000456 | 0.177396 |
| RADIL | 0.00572897 | 0 |
| RAE1 | 9.84411809 | 9.708141 |
| RAET1E | 0 | 0 |
| RAET1F | 0 | 0 |
| RAET1G | 0 | 0 |
| RAET1J | 0 | 0 |
| RAET1K | 0 | 0 |
| RAET1L | 0 | 0 |
| RAET1M | 0 | 0 |
| RAF1 | 60.3603547 | 53.72144 |
| RAF1P1 | 0 | 0 |
| RAG1 | 0.0702761 | 0.072577 |
| RAG1AP1 | 10.8022922 | 10.65315 |
| RAG2 | 0 | 0 |
| RAGE | 0.13045707 | 0.086451 |
| RAI1 | 32.5066654 | 43.89224 |
| RAI14 | 0.00718078 | 0 |
| RAI2 | 0.00944534 | 0 |
| RALA | 8.96358888 | 9.226008 |
| RALB | 107.09807 | 97.04052 |
| RALBP1 | 18.9778481 | 17.07176 |
| RALGDS | 42.9522907 | 60.01203 |
| RALGPS1 | 2.57175371 | 2.849928 |
| RALGPS2 | 8.64582944 | 8.671351 |
| RALY | 83.3537565 | 83.33249 |
| RALYL | 0 | 0 |
| RAMP1 | 0.04620952 | 0.026247 |
| RAMP2 | 0 | 0 |
| RAMP3 | 0 | 0 |
| RAN | 29.0938753 | 27.85481 |
| RANBP1 | 10.1083322 | 9.267639 |
| RANBP10 | 6.60286548 | 6.177261 |
| RANBP17 | 0.00473543 | 0.00538 |
| RANBP2 | 24.5083078 | 24.14617 |
| RANBP20P | 0 | 0 |
| RANBP3 | 17.53965 | 16.29551 |

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| RANBP3L | 0 | 0 |
| RANBP6 | 11.3445373 | 10.67041 |
| RANBP9 | 19.397607 | 23.44777 |
| RANGAP1 | 10.8989303 | 10.38896 |
| RANGRF | 11.8299151 | 10.35981 |
| RANP1 | 0 | 0 |
| RAP1A | 69.8314241 | 77.17391 |
| RAP1AP | 0 | 0 |
| RAP1B | 49.7443165 | 51.18238 |
| RAP1BL | 0.04339594 | 0.036974 |
| RAP1GAP | 0.09939673 | 0.059779 |
| RAP1GDS1 | 2.04048014 | 1.822661 |
| RAP2A | 2.22411142 | 2.230665 |
| RAP2B | 6.23309876 | 6.594542 |
| RAP2C | 31.7598503 | 34.34282 |
| RAPGEF1 | 134.751439 | 153.2653 |
| RAPGEF2 | 11.7718427 | 14.94176 |
| RAPGEF3 | 0.07643259 | 0.112154 |
| RAPGEF4 | 0.01330998 | 0.02016 |
| RAPGEF5 | 0 | 0.003607 |
| RAPGEF6 | 5.59465243 | 5.313218 |
| RAPGEFL1 | 2.76426407 | 2.640372 |
| RAPH1 | 0.00608372 | 0.002304 |
| RAPSN | 0.64440618 | 0.401913 |
| RARA | 48.6263429 | 60.22222 |
| RARB | 0.06041762 | 0.068635 |
| RARG | 1.34602 | 1.897217 |
| RARRES1 | 0.03786074 | 0.014337 |
| RARRES2 | 0 | 0.032234 |
| RARRES3 | 2.99576611 | 2.966125 |
| RARS | 9.52034846 | 8.761594 |
| RARS2 | 12.4866594 | 11.96863 |
| RASA1 | 5.69998651 | 5.176933 |
| RASA2 | 5.73491859 | 5.077429 |
| RASA3 | 35.1373329 | 35.46939 |
| RASA4 | 0.04875656 | 0.06817 |
| RASA4P | 0 | 0 |
| RASAL1 | 0.18171701 | 0.183496 |
| RASAL2 | 0.62053928 | 0.806307 |
| RASAL3 | 162.214582 | 214.1747 |
| RASD1 | 0.06021 | 0.0684 |
| RASD2 | 0.04243255 | 0.20085 |
| RASEF | 0.00761511 | 0 |
| RASGEF1A | 1.60762404 | 1.184822 |
| RASGEF1B | 0.25945759 | 0.252641 |
| RASGEF1C | 0 | 0.010778 |
| RASGRF1 | 0.01432634 | 0.01302 |

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| RASGRF2 | 0.02577897 | 0.005857 |
| RASGRP1 | 4.8410563 | 3.997488 |
| RASGRP2 | 57.5957265 | 67.04852 |
| RASGRP3 | 0.57586862 | 0.463969 |
| RASGRP4 | 39.4894656 | 34.03888 |
| RASIP1 | 0.10187925 | 0.115736 |
| RASL10A | 0.03529714 | 0.080196 |
| RASL10B | 0.00658276 | 0.022434 |
| RASL11A | 0.38153549 | 0.247674 |
| RASL11B | 0.01074365 | 0.012205 |
| RASL12 | 0.00815568 | 0.009265 |
| RASSF1 | 69.0230042 | 66.97817 |
| RASSF10 | 0.03413203 | 0.02585 |
| RASSF2 | 378.274605 | 351.9952 |
| RASSF3 | 20.9938795 | 14.41682 |
| RASSF4 | 0.27809055 | 0.229757 |
| RASSF5 | 283.416395 | 275.3406 |
| RASSF6 | 0.01888644 | 0.005364 |
| RASSF7 | 15.5805241 | 26.25051 |
| RASSF8 | 0.00955697 | 0.010857 |
| RASSF9 | 0 | 0 |
| RAVER1 | 22.8978904 | 25.67333 |
| RAVER2 | 0.73747722 | 0.892543 |
| RAX | 0.00657658 | 0.007471 |
| RAX2 | 0.01951307 | 0 |
| RB1 | 6.01856708 | 6.40173 |
| RB1CC1 | 18.0167565 | 17.31106 |
| RBAK | 6.27775109 | 5.804472 |
| RBBP4 | 10.5860889 | 9.979436 |
| RBBP5 | 8.45466064 | 8.138966 |
| RBBP6 | 11.6614244 | 11.55912 |
| RBBP7 | 22.3049528 | 22.50235 |
| RBBP8 | 4.1754947 | 3.856555 |
| RBBP9 | 1.00198417 | 0.79184 |
| RBCK1 | 23.0882798 | 25.19092 |
| RBKS | 0.8614057 | 0.559183 |
| RBL1 | 0.79358912 | 0.765757 |
| RBL2 | 34.7610773 | 30.0397 |
| RBM10 | 17.4051987 | 16.96506 |
| RBM11 | 0.20309166 | 0.145715 |
| RBM12 | 0 | 0 |
| RBM12B | 3.80630992 | 3.734388 |
| RBM14 | 7.01232645 | 6.938371 |
| RBM15 | 9.14917491 | 7.274829 |
| RBM15B | 8.12190497 | 7.191915 |
| RBM16 | 15.23118 | 13.63227 |
| RBM17 | 24.8736937 | 30.32522 |

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| RBM18 | 5.35912934 | 4.951411 |
| RBM19 | 1.40880907 | 1.265321 |
| RBM20 | 0.0377892 | 0.023116 |
| RBM22 | 36.8240777 | 36.05123 |
| RBM23 | 36.8589231 | 32.76406 |
| RBM24 | 0 | 0.008759 |
| RBM25 | 47.7724055 | 44.28431 |
| RBM26 | 15.4847153 | 13.26731 |
| RBM27 | 7.88048174 | 7.404311 |
| RBM28 | 3.07633002 | 2.499901 |
| RBM3 | 94.5477887 | 84.18448 |
| RBM33 | 30.250004 | 28.82175 |
| RBM34 | 17.6060903 | 15.94612 |
| RBM38 | 27.0893118 | 35.61709 |
| RBM39 | 145.4408 | 135.2157 |
| RBM4 | 31.2182682 | 30.97509 |
| RBM41 | 4.46566897 | 3.750911 |
| RBM42 | 27.6387532 | 27.85149 |
| RBM43 | 1.91774225 | 1.659875 |
| RBM44 | 0.37308549 | 0.501905 |
| RBM45 | 0.90697506 | 1.016957 |
| RBM46 | 0 | 0 |
| RBM47 | 0.03605716 | 0.040962 |
| RBM4B | 18.0722665 | 15.3458 |
| RBM5 | 104.25173 | 92.76668 |
| RBM6 | 38.9557982 | 33.75314 |
| RBM7 | 11.5710611 | 12.6216 |
| RBM8A | 31.798267 | 30.86124 |
| RBM8B | 0 | 0 |
| RBM9 | 0.00286879 | 0.003259 |
| RBMS1 | 23.7528354 | 24.01328 |
| RBMS1P | 0 | 0 |
| RBMS2 | 0.03468709 | 0.073181 |
| RBMS2P | 0 | 0 |
| RBMS3 | 0 | 0.01636 |
| RBMX | 27.2170266 | 26.79567 |
| RBMX2 | 6.97633691 | 5.79933 |
| RBMXL2 | 0.0189845 | 0.03235 |
| RBMXL3 | 0 | 0 |
| RBMXP1 | 0 | 0 |
| RBMXP2 | 0 | 0 |
| RBMXP3 | 0 | 0 |
| RBMXP4 | 0 | 0 |
| RBMX1A1 | 0 | 0 |
| RBMX1A3P | 0 | 0 |
| RBMX1B | 0 | 0 |
| RBMX1D | 0 | 0 |

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| RBM1E | 0 | 0 |
| RBM1F | 0 | 0 |
| RBM1H | 0 | 0 |
| RBM1J | 0 | 0 |
| RBM2AP | 0 | 0 |
| RBM2BP | 0 | 0 |
| RBM2CP | 0 | 0 |
| RBM2DP | 0 | 0 |
| RBM2EP | 0 | 0 |
| RBM2FP | 0 | 0 |
| RBM2GP | 0 | 0 |
| RBM2HP | 0 | 0 |
| RBM2JP | 0 | 0 |
| RBM2KP | 0 | 0 |
| RBM2MP | 0 | 0 |
| RBM2NP | 0 | 0 |
| RBM2OP | 0 | 0 |
| RBM2QP | 0 | 0 |
| RBM2SP | 0 | 0 |
| RBM2TP | 0 | 0 |
| RBM2UP | 0 | 0 |
| RBM2VP | 0 | 0 |
| RBM2WP | 0 | 0 |
| RBM2XP | 0 | 0 |
| RBM2YP | 0 | 0 |
| RBM3AP | 0 | 0 |
| RBP1 | 0 | 0 |
| RBP2 | 0 | 0.034717 |
| RBP3 | 0.00983411 | 0 |
| RBP4 | 0 | 0.025711 |
| RBP5 | 2.86302379 | 2.744247 |
| RBP7 | 0.03209974 | 0 |
| RBPJ | 37.4979328 | 34.79327 |
| RBPJL | 0 | 0 |
| RBPJP1 | 0 | 0 |
| RBPMS | 0.40666778 | 0.2896 |
| RBPMS2 | 0.01053373 | 0.023933 |
| RBX1 | 93.2217169 | 92.97313 |
| RC3H1 | 9.54132425 | 8.784229 |
| RC3H2 | 7.69292719 | 7.146188 |
| RCAN1 | 1.42053253 | 1.366745 |
| RCAN2 | 0 | 0 |
| RCAN3 | 1.4223018 | 2.037259 |
| RCBTB1 | 3.07064715 | 2.422269 |
| RCBTB2 | 2.41708529 | 2.760893 |
| RCC1 | 0.04982306 | 0.075466 |
| RCC2 | 76.0749508 | 99.78437 |

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| RCC2P1 | 0 | 0 |
| RCC2P2 | 0 | 0 |
| RCCD1 | 0.07598602 | 0.051793 |
| RCE1 | 6.37477744 | 6.007811 |
| RCHY1 | 3.83119599 | 3.2186 |
| RCL1 | 0.70762986 | 1.024119 |
| RCN1 | 0.1337064 | 0.037973 |
| RCN2 | 4.0283508 | 3.626478 |
| RCN3 | 4.98983043 | 5.333568 |
| RCOR1 | 25.1435377 | 23.63842 |
| RCOR2 | 0.05671573 | 0.055226 |
| RCOR3 | 21.3583972 | 21.9789 |
| RCSD1 | 64.1233932 | 50.29369 |
| RCTPI1 | 0 | 0 |
| RCVRN | 0.19683289 | 0.060983 |
| RD3 | 2.61707706 | 5.610145 |
| RDBP | 18.8702682 | 16.87718 |
| RDH10 | 0.56567727 | 0.608796 |
| RDH11 | 17.1362997 | 10.26836 |
| RDH12 | 0.03358679 | 0.012718 |
| RDH13 | 1.86915298 | 1.87146 |
| RDH14 | 4.32333368 | 3.776833 |
| RDH16 | 0.14634801 | 0.24938 |
| RDH5 | 2.2802341 | 2.09017 |
| RDH8 | 0.02453364 | 0 |
| RDM1 | 0.03324163 | 0.037763 |
| RDX | 8.1853627 | 13.3363 |
| RDXP2 | 0 | 0 |
| REC8 | 25.9772429 | 27.0411 |
| RECK | 0.16679206 | 0.135342 |
| RECQL | 9.1912799 | 7.780516 |
| RECQL4 | 0.23226299 | 0.320395 |
| RECQL5 | 2.65222181 | 2.416733 |
| REEP1 | 0.01090243 | 0.006193 |
| REEP2 | 0.01001683 | 0.045517 |
| REEP3 | 3.77612744 | 3.727493 |
| REEP4 | 55.2566549 | 72.69872 |
| REEP5 | 17.5031157 | 22.74298 |
| REEP6 | 0 | 0.086981 |
| REG1A | 0.02602145 | 0 |
| REG1B | 0 | 0.029634 |
| REG1P | 0 | 0 |
| REG3A | 0 | 0 |
| REG3G | 0 | 0 |
| REG4 | 0 | 0.018719 |
| REL | 11.2994931 | 8.698898 |
| RELA | 38.2990513 | 45.72266 |

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| RELB | 12.9208532 | 14.2995 |
| RELL1 | 5.81895309 | 4.840936 |
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| REPS1 | 6.11635226 | 4.708414 |
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| RER1 | 24.8524442 | 23.48355 |
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| RESP18 | 0 | 0 |
| REST | 7.74315355 | 11.39156 |
| RET | 0.00657144 | 0.022396 |
| RETN | 0.04398605 | 0.199875 |
| RETNLB | 0.03669342 | 0 |
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| REV1 | 9.97970399 | 12.26546 |
| REV3L | 3.70757869 | 3.361459 |
| REXO1 | 14.4666761 | 12.98795 |
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| REXO1L3P | 0 | 0 |
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| REXO1L5P | 0 | 0 |
| REXO1L6P | 0 | 0 |
| REXO1L7P | 0 | 0 |
| REXO1L8 | 0 | 0 |
| REXO2 | 4.50930871 | 3.517962 |
| REXO4 | 2.41434945 | 2.00392 |
| RFC1 | 4.49527862 | 4.035473 |
| RFC2 | 10.5747237 | 13.21154 |
| RFC3 | 3.83079329 | 3.543166 |
| RFC4 | 2.96952972 | 2.831274 |
| RFC5 | 2.59834925 | 1.95494 |
| RFESD | 0.24422243 | 0.176553 |
| RFFL | 43.5006847 | 62.8125 |
| RFK | 2.41554412 | 2.558804 |
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| RFPL1 | 0.0421631 | 0.031932 |
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| RFPL2 | 0.02816521 | 0 |
| RFPL3 | 0.11206039 | 0.015913 |
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| RFPL4A | 0 | 0 |
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| RFTN1 | 3.20072493 | 4.272586 |
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| RFTN2 | 0.01350808 | 0.023018 |
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| RFXAP | 1.92763211 | 1.910809 |
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| RGL1 | 0.13981249 | 0.205544 |
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| RGP1 | 8.51720583 | 8.45931 |
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| RGS13 | 1.9088418 | 2.343866 |
| RGS14 | 74.2790163 | 83.58796 |
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| RGS7BP | 0 | 0 |
| RGS8 | 0 | 0.02619 |
| RGS9 | 0.07783956 | 0.088427 |
| RGS9BP | 0.05085602 | 0.041267 |
| RGSL1 | 0.00559184 | 0 |
| RHAG | 0 | 0 |
| RHBDD1 | 2.51644489 | 1.98139 |
| RHBDD2 | 118.751696 | 110.51 |
| RHBDD3 | 0.32663057 | 0.233629 |
| RHBDF1 | 0.02108155 | 0 |
| RHBDF2 | 2.18770786 | 2.372605 |
| RHBDL1 | 1.45653351 | 1.271625 |
| RHBDL2 | 0 | 0.026004 |
| RHBDL3 | 0.00451091 | 0.005124 |
| RHBG | 0.02350512 | 0.013351 |
| RHCE | 0.03898393 | 0.073811 |
| RHCG | 0.01085458 | 0 |
| RHD | 1.33588407 | 1.264655 |
| RHEB | 12.7063928 | 12.4663 |
| RHEBL1 | 0.14290794 | 0.162346 |
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| RHOA | 233.750922 | 234.8371 |
| RHOB | 51.7860919 | 54.69256 |
| RHOBTB1 | 0.05605509 | 0.053066 |
| RHOBTB2 | 2.34397032 | 2.004147 |
| RHOBTB3 | 13.5535191 | 10.48782 |
| RHOC | 0.14267652 | 0.162083 |
| RHOD | 0 | 0.021081 |
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| RHOH | 36.6234129 | 38.9522 |

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| RHOJ | 0.01103692 | 0 |
| RHOQ | 17.9145819 | 10.93814 |
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| RHOT1 | 10.9796833 | 12.68242 |
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| RHOU | 3.92583112 | 3.000836 |
| RHOV | 0.01801656 | 0 |
| RHOXF1 | 0.16708872 | 0.094908 |
| RHOXF2 | 0.14589667 | 0.036831 |
| RHOXF2B | 0.03212426 | 0.036494 |
| RHPN1 | 1.59034132 | 1.999534 |
| RHPN2 | 0.01801656 | 0.020467 |
| RIBC1 | 0.15761118 | 0.161144 |
| RIBC2 | 0.0602445 | 0.085548 |
| RIC3 | 0.06876937 | 0.106905 |
| RIC8A | 18.3718751 | 17.47626 |
| RIC8B | 0.83022453 | 0.713346 |
| RICH2 | 0.02964097 | 0.061733 |
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| RICTOR | 19.2256173 | 17.44843 |
| RIF1 | 3.17273573 | 2.732413 |
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| RIMBP3 | 0.15961259 | 0.403855 |
| RIMBP3B | 0.01551971 | 0.044077 |
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| RIMKLA | 0.42174001 | 0.517522 |
| RIMKLB | 1.28027315 | 1.106171 |
| RIMKLB2 | 0 | 0 |
| RIMS1 | 0 | 0.003295 |
| RIMS2 | 0.01034033 | 0.007831 |
| RIMS3 | 0.06398634 | 0.056169 |
| RIMS4 | 0 | 0.009301 |
| RIN1 | 0.08616939 | 0.160183 |
| RIN2 | 0.01981652 | 0.016884 |
| RIN3 | 132.128009 | 148.2068 |
| RING1 | 24.6787544 | 23.61025 |
| RINL | 8.94324736 | 7.827295 |
| RINT1 | 5.53893127 | 5.192764 |
| RIOK1 | 3.98812523 | 4.021 |
| RIOK2 | 3.58073322 | 2.777035 |
| RIOK3 | 31.5979199 | 30.95889 |
| RIPK1 | 22.6522911 | 21.63506 |
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| RLF | 10.734693 | 10.42919 |
| RLFP | 0 | 0 |
| RLIM | 12.33945 | 12.50996 |
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| RLN2 | 0 | 0 |
| RLN3 | 0 | 0 |
| RLTPR | 0.61963467 | 0.794571 |
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| RMND1 | 0.96819944 | 0.837416 |
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| RN5S13 | 0 | 0 |
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| RNASEH1 | 5.54976879 | 5.101674 |
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| RNASEH2C | 3.06509313 | 2.90738 |
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| RNASET2 | 276.222388 | 254.5579 |
| RND1 | 0.025439 | 0.028899 |
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| RND3 | 0.015673 | 0 |
| RNF10 | 90.8182804 | 82.45237 |
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| RNF130 | 91.8762567 | 94.3895 |
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| RNFT1 | 22.2142634 | 25.70967 |
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| RNU7-8P | 0 | 0 |
| RNU7-9P | 0 | 0 |
| RNU86 | 0 | 0 |
| RNY1 | 0 | 0 |
| RNY3 | 0 | 0 |
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| RNY4P2 | 0 | 0 |
| RNY4P3 | 0 | 0 |
| RNY4P7 | 0 | 0 |

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| RNY5P10 | 0 | 0 |
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| ROBLD3 | 14.4182519 | 11.96009 |
| ROBO1 | 0.00549898 | 0.006247 |
| ROBO2 | 0.00336998 | 0.011485 |
| ROBO3 | 0.42796143 | 0.653456 |
| ROBO4 | 0 | 0.006225 |
| ROCK1 | 40.7923038 | 39.73548 |
| ROCK2 | 5.68909127 | 5.391967 |
| ROD1 | 38.840155 | 43.51847 |
| ROGDI | 3.67726982 | 3.685974 |
| ROM1 | 0.94043014 | 1.068344 |
| ROMO1 | 12.222969 | 10.93223 |
| ROPN1 | 0 | 0 |
| ROPN1B | 0.08401731 | 0.047722 |
| ROPN1L | 3.89059336 | 2.656446 |
| ROR1 | 0.03067898 | 0.005809 |
| ROR2 | 0.01027882 | 0.011677 |
| RORA | 0.06744146 | 0.072473 |
| RORB | 0.00583389 | 0 |
| RORC | 0.01308359 | 0.007432 |
| ROS1 | 0.0028536 | 0.003242 |
| RP1 | 0 | 0 |
| RP11-45B20.2 | 0 | 0 |
| RP11-529I10.4 | 0.07894367 | 0.029894 |
| RP1-177G6.2 | 0 | 0.017296 |
| RP1L1 | 0.01054166 | 0.005988 |
| RP2 | 16.5963458 | 15.01938 |
| RP5-1022P6.2 | 79.7683879 | 107.6339 |
| RP9 | 4.10753567 | 4.048324 |
| RP9P | 0 | 0 |
| RPA1 | 13.9362378 | 13.25912 |
| RPA2 | 29.6188238 | 25.81536 |
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| RPA3 | 2.20277934 | 1.678251 |
| RPA4 | 0 | 0 |
| RPAIN | 13.4644302 | 11.95033 |
| RPAP1 | 0.99006267 | 0.828208 |
| RPAP2 | 1.36275293 | 1.366443 |
| RPAP3 | 10.6244033 | 6.674714 |
| RPE | 2.88469849 | 2.687192 |
| RPE65 | 0 | 0 |
| RPGR | 2.03376037 | 2.03882 |
| RPGRIP1 | 0.3729785 | 0.187643 |
| RPGRIP1L | 0.04421373 | 0.030909 |

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| RPH3A | 0.01373008 | 0.005199 |
| RPH3AL | 0.39870016 | 0.415956 |
| RPIA | 8.1625058 | 6.902458 |
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| RPL10AP9 | 0 | 0 |
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| RPL12P11 | 0 | 0 |
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| RPL13AP15 | 0 | 0 |

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| RPL14P5 (NC_00 | 0 | 0 |
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| RPL17P38 | 0 | 0 |

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| RPL18A | 9.01571635 | 8.696035 |
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| RPL19 | 151.141109 | 143.6043 |
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| RPL24P6 | 0 | 0 |
| RPL24P7 | 0 | 0 |

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| RPL26P37 | 0 | 0 |
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| RPL27 | 132.608249 | 119.0395 |
| RPL27A | 19.0257914 | 17.89303 |
| RPL27AP | 0 | 0 |
| RPL27AP2 | 0 | 0 |
| RPL27AP3 | 0 | 0 |
| RPL27AP4 | 0 | 0 |
| RPL27AP5 | 0 | 0 |

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| RPL27AP6 | 0 | 0 |
| RPL27AP7 | 0 | 0 |
| RPL27AP8 | 0 | 0 |
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| RPL27P4 | 0 | 0 |
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| RPL27P6 | 0 | 0 |
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| RPL27P9 | 0 | 0 |
| RPL28 | 20.7982493 | 21.42059 |
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| RPL29 | 60.2927836 | 59.04262 |
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| RPL29P31 | 0 | 0 |

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| RPL3 | 73.7143704 | 74.86857 |
| RPL30 | 256.009426 | 238.1416 |
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| RPL31P28 | 0 | 0 |

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| RPL32 | 38.4314549 | 34.65204 |
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| RPL32P11 | 0 | 0 |
| RPL32P12 | 0 | 0 |

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| RPL34P2 | 0 | 0 |
| RPL34P20 | 0 | 0 |
| RPL34P21 | 0 | 0 |

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| RPL34P34 | 0 | 0 |
| RPL34P35 | 0 | 0 |
| RPL34P4 | 0 | 0 |
| RPL34P5 | 0 | 0 |
| RPL34P6 | 0 | 0 |
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| RPL34P9 | 0 | 0 |
| RPL35 | 57.225466 | 54.62421 |
| RPL35A | 118.506411 | 115.2802 |
| RPL35AP | 0 | 0 |
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| RPL35AP25 | 0 | 0 |
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| RPL35AP27 | 0 | 0 |
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| RPL35AP29 | 0 | 0 |
| RPL35AP3 | 0 | 0 |
| RPL35AP30 | 0 | 0 |

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| RPL35AP32 | 0 | 0 |
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| RPL35AP35 | 0 | 0 |
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| RPL35P2 | 0 | 0 |
| RPL35P3 | 0 | 0 |
| RPL35P4 | 0 | 0 |
| RPL35P5 | 0 | 0 |
| RPL35P6 | 0 | 0 |
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| RPL36 | 48.6297804 | 51.3688 |
| RPL36_7_1657 | 0 | 0 |
| RPL36A | 19.9089417 | 17.06834 |
| RPL36AL | 138.413412 | 123.3074 |
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| RPL36AP26 | 0 | 0 |
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| RPL36AP28 | 0 | 0 |
| RPL36AP29 | 0 | 0 |
| RPL36AP30 | 0 | 0 |

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| RPL36AP32 | 0 | 0 |
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| RPL36AP9 | 0 | 0 |
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| RPL36P7 | 0 | 0 |
| RPL36P8 | 0 | 0 |
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| RPL37 | 56.5675146 | 52.86672 |
| RPL37A | 145.224965 | 131.5387 |
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| RPL37AP9 | 0 | 0 |
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| RPL37P3 | 0 | 0 |
| RPL37P4 | 0 | 0 |
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| RPL37P6 | 0 | 0 |
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| RPL37P9 | 0 | 0 |
| RPL38 | 111.241164 | 107.3611 |
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| RPL38P2 | 0 | 0 |
| RPL38P3 | 0 | 0 |
| RPL39 | 209.257097 | 187.3879 |
| RPL39L | 0.35889612 | 0.407712 |
| RPL39P | 0 | 0 |
| RPL39P10 | 0 | 0 |
| RPL39P11 | 0 | 0 |
| RPL39P12 | 0 | 0 |
| RPL39P13 | 0 | 0 |
| RPL39P14 | 0 | 0 |

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| RPL39P41 | 0 | 0 |
| RPL39P42 | 0 | 0 |
| RPL39P5 | 0 | 0 |
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| RPL39P9 | 0 | 0 |
| RPL3L | 0 | 0.031243 |
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| RPL3P12 | 0 | 0 |
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| RPL3P3 | 0 | 0 |
| RPL3P4 | 0 | 0 |
| RPL3P5 | 0 | 0 |
| RPL3P6 | 0 | 0 |
| RPL3P7 | 0 | 0 |

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| RPL3P9 | 0 | 0 |
| RPL4 | 70.5493822 | 63.79926 |
| RPL41 | 220.441955 | 198.5245 |
| RPL41P1 | 0 | 0 |
| RPL41P2 | 0 | 0 |
| RPL41P3 | 0 | 0 |
| RPL41P4 | 0 | 0 |
| RPL41P5 | 0 | 0 |
| RPL41P6 | 0 | 0 |
| RPL41P7 | 0 | 0 |
| RPL4P1 | 0 | 0 |
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| RPL4P6 | 0 | 0 |
| RPL5 | 49.2494416 | 59.58536 |
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| RPL5P33 | 0 | 0 |
| RPL5P34 | 0 | 0 |
| RPL5P35 | 0 | 0 |

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| RPL5P5 | 0 | 0 |
| RPL5P6 | 0 | 0 |
| RPL5P7 | 0 | 0 |
| RPL5P8 | 0 | 0 |
| RPL5P9 | 0 | 0 |
| RPL6 | 79.7846187 | 74.27635 |
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| RPL6P11 | 0 | 0 |
| RPL6P12 | 0 | 0 |
| RPL6P13 | 0 | 0 |
| RPL6P14 | 0 | 0 |
| RPL6P15 | 0 | 0 |
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| RPL6P3 | 0 | 0 |
| RPL6P30 | 0 | 0 |
| RPL6P4 | 0 | 0 |
| RPL6P5 | 0 | 0 |
| RPL6P6 | 0 | 0 |
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| RPL6P9 | 0 | 0 |
| RPL7 | 35.293417 | 31.4473 |
| RPL7A | 61.4931871 | 57.51212 |
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| RPL7AP11 | 0 | 0 |
| RPL7AP12 | 0 | 0 |
| RPL7AP13 | 0 | 0 |
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| RPL7AP15 | 0 | 0 |
| RPL7AP16 | 0 | 0 |
| RPL7AP17 | 0 | 0 |

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| RPL7AP58 | 0 | 0 |
| RPL7AP59 | 0 | 0 |
| RPL7AP6 | 0 | 0 |

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| RPL7AP61 | 0 | 0 |
| RPL7AP62 | 0 | 0 |
| RPL7AP63 | 0 | 0 |
| RPL7AP64 | 0 | 0 |
| RPL7AP65 | 0 | 0 |
| RPL7AP66 | 0 | 0 |
| RPL7AP67 | 0 | 0 |
| RPL7AP68 | 0 | 0 |
| RPL7AP69 | 0 | 0 |
| RPL7AP7 | 0 | 0 |
| RPL7AP70 | 0 | 0 |
| RPL7AP71 | 0 | 0 |
| RPL7AP72 | 0 | 0 |
| RPL7AP8 | 0 | 0 |
| RPL7L1 | 7.48666687 | 7.249833 |
| RPL7P | 0 | 0 |
| RPL7P10 | 0 | 0 |
| RPL7P11 | 0 | 0 |
| RPL7P12 | 0 | 0 |
| RPL7P13 | 0 | 0 |
| RPL7P14 | 0 | 0 |
| RPL7P15 | 0 | 0 |
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| RPL7P20 | 0 | 0 |
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| RPL7P26 | 0 | 0 |
| RPL7P27 | 0 | 0 |
| RPL7P28 | 0 | 0 |
| RPL7P29 | 0 | 0 |
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| RPL7P33 | 0 | 0 |
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| RPL7P35 | 0 | 0 |
| RPL7P36 | 0 | 0 |
| RPL7P37 | 0 | 0 |

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| RPL7P38 | 0 | 0 |
| RPL7P39 | 0 | 0 |
| RPL7P4 | 0 | 0 |
| RPL7P40 | 0 | 0 |
| RPL7P41 | 0 | 0 |
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| RPL7P45 | 0 | 0 |
| RPL7P46 | 0 | 0 |
| RPL7P47 | 0 | 0 |
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| RPL7P58 | 0 | 0 |
| RPL7P6 | 0 | 0 |
| RPL7P7 | 0 | 0 |
| RPL7P8 | 0 | 0 |
| RPL7P9 | 0 | 0 |
| RPL8 | 159.102453 | 158.7931 |
| RPL8P1 | 0 | 0 |
| RPL8P2 | 0 | 0 |
| RPL8P3 | 0 | 0 |
| RPL8P4 | 0 | 0 |
| RPL8P5 | 0 | 0 |
| RPL9 | 76.2724938 | 69.97778 |
| RPL9P1 | 0 | 0 |
| RPL9P10 | 0 | 0 |
| RPL9P11 | 0 | 0 |
| RPL9P12 | 0 | 0 |
| RPL9P13 | 0 | 0 |
| RPL9P14 | 0 | 0 |
| RPL9P15 | 0 | 0 |
| RPL9P16 | 0 | 0 |
| RPL9P17 | 0 | 0 |
| RPL9P18 | 0 | 0 |
| RPL9P19 | 0 | 0 |
| RPL9P2 | 0 | 0 |
| RPL9P20 | 0 | 0 |

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| RPL9P21 | 0 | 0 |
| RPL9P22 | 0 | 0 |
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| RPL9P25 | 0 | 0 |
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| RPL9P33 | 0 | 0 |
| RPL9P4 | 0 | 0 |
| RPL9P5 | 0 | 0 |
| RPL9P6 | 0 | 0 |
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| RPL9P8 | 0 | 0 |
| RPL9P9 | 0 | 0 |
| RPLP0 | 21.956833 | 19.42555 |
| RPLPOP1 | 0 | 0 |
| RPLPOP10 | 0 | 0 |
| RPLPOP11 | 0 | 0 |
| RPLPOP2 | 0 | 0 |
| RPLPOP3 | 0 | 0 |
| RPLPOP4 | 0 | 0 |
| RPLPOP5 | 0 | 0 |
| RPLPOP6 | 0 | 0 |
| RPLPOP7 | 0 | 0 |
| RPLPOP8 | 0 | 0 |
| RPLPOP9 | 0 | 0 |
| RPLP1 | 424.736324 | 397.0899 |
| RPLP1P1 | 0 | 0 |
| RPLP1P10 | 0 | 0 |
| RPLP1P11 | 0 | 0 |
| RPLP1P12 | 0 | 0 |
| RPLP1P2 | 0 | 0 |
| RPLP1P3 | 0 | 0 |
| RPLP1P4 | 0 | 0 |
| RPLP1P5 | 0 | 0 |
| RPLP1P6 | 0 | 0 |
| RPLP1P7 | 0 | 0 |
| RPLP1P8 | 0 | 0 |
| RPLP1P9 | 0 | 0 |
| RPLP2 | 186.711763 | 190.0635 |
| RPLP2P1 | 0 | 0 |

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| RPLP2P2 | 0 | 0 |
| RPLP2P3 | 0 | 0 |
| RPLP2P4 | 0 | 0 |
| RPLP2P5 | 0 | 0 |
| RPN1 | 58.6302266 | 57.92216 |
| RPN2 | 33.3888178 | 32.09912 |
| RPP14 | 3.98880565 | 3.528172 |
| RPP21 | 15.7085806 | 17.25036 |
| RPP25 | 0.18024287 | 0.184283 |
| RPP30 | 1.46241083 | 1.331531 |
| RPP38 | 3.18681043 | 2.740441 |
| RPP40 | 0.0725637 | 0 |
| RPPH1 | 0 | 0 |
| RPRD1A | 2.87201686 | 2.624676 |
| RPRD1B | 10.1379889 | 9.061783 |
| RPRD2 | 6.35680808 | 6.573827 |
| RPRM | 0.07146611 | 0.016237 |
| RPRML | 0.0384727 | 0.043706 |
| RPS10 | 59.5717711 | 54.84299 |
| RPS10P1 | 0 | 0 |
| RPS10P10 | 0 | 0 |
| RPS10P11 | 0 | 0 |
| RPS10P12 | 0 | 0 |
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| RPS10P20 | 0 | 0 |
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| RPS10P27 | 0 | 0 |
| RPS10P28 | 0 | 0 |
| RPS10P29 | 0 | 0 |
| RPS10P3 | 0 | 0 |
| RPS10P30 | 0 | 0 |
| RPS10P31 | 0 | 0 |
| RPS10P4 | 0 | 0 |
| RPS10P5 | 0 | 0 |
| RPS10P6 | 0 | 0 |

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| RPS10P7 | 0 | 0 |
| RPS10P8 | 0 | 0 |
| RPS10P9 | 0 | 0 |
| RPS11 | 346.624504 | 347.4126 |
| RPS11P1 | 0 | 0 |
| RPS11P2 | 0 | 0 |
| RPS11P3 | 0 | 0 |
| RPS11P4 | 0 | 0 |
| RPS11P5 | 0 | 0 |
| RPS11P6 | 0 | 0 |
| RPS11P7 | 0 | 0 |
| RPS12 | 100.44507 | 92.31144 |
| RPS12P1 | 0 | 0 |
| RPS12P10 | 0 | 0 |
| RPS12P11 | 0 | 0 |
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| RPS12P14 | 0 | 0 |
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| RPS12P32 | 0 | 0 |
| RPS12P4 | 0 | 0 |
| RPS12P5 | 0 | 0 |
| RPS12P6 | 0 | 0 |
| RPS12P7 | 0 | 0 |
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| RPS12P9 | 0 | 0 |
| RPS13 | 62.0426118 | 57.65838 |
| RPS13P1 | 0 | 0 |
| RPS13P2 | 0 | 0 |

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| RPS13P3 | 0 | 0 |
| RPS13P4 | 0 | 0 |
| RPS13P5 | 0 | 0 |
| RPS13P6 | 0 | 0 |
| RPS13P7 | 0 | 0 |
| RPS13P8 | 0 | 0 |
| RPS14 | 75.5146429 | 69.89281 |
| RPS14P1 | 0 | 0 |
| RPS14P10 | 0 | 0 |
| RPS14P2 | 0 | 0 |
| RPS14P3 | 0 | 0 |
| RPS14P4 | 0 | 0 |
| RPS14P5 | 0 | 0 |
| RPS14P6 | 0 | 0 |
| RPS14P7 | 0 | 0 |
| RPS14P8 | 0 | 0 |
| RPS14P9 | 0 | 0 |
| RPS15 | 104.849485 | 109.5746 |
| RPS15A | 122.512242 | 109.5724 |
| RPS15AP1 | 0 | 0 |
| RPS15AP10 | 0 | 0 |
| RPS15AP11 | 0 | 0 |
| RPS15AP12 | 0 | 0 |
| RPS15AP13 | 0 | 0 |
| RPS15AP14 | 0 | 0 |
| RPS15AP15 | 0 | 0 |
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| RPS15AP27 | 0 | 0 |
| RPS15AP28 | 0 | 0 |
| RPS15AP29 | 0 | 0 |
| RPS15AP3 | 0 | 0 |
| RPS15AP30 | 0 | 0 |
| RPS15AP31 | 0 | 0 |
| RPS15AP32 | 0 | 0 |
| RPS15AP33 | 0 | 0 |
| RPS15AP34 | 0 | 0 |

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| RPS15AP35 | 0 | 0 |
| RPS15AP36 | 0 | 0 |
| RPS15AP37 | 0 | 0 |
| RPS15AP38 | 0 | 0 |
| RPS15AP39 | 0 | 0 |
| RPS15AP4 | 0 | 0 |
| RPS15AP40 | 0 | 0 |
| RPS15AP5 | 0 | 0 |
| RPS15AP6 | 0 | 0 |
| RPS15AP7 | 0 | 0 |
| RPS15AP8 | 0 | 0 |
| RPS15AP9 | 0 | 0 |
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| RPS15P3 | 0 | 0 |
| RPS15P4 | 0 | 0 |
| RPS15P5 | 0 | 0 |
| RPS15P6 | 0 | 0 |
| RPS15P7 | 0 | 0 |
| RPS15P8 | 0 | 0 |
| RPS15P9 | 0 | 0 |
| RPS16 | 60.8665513 | 63.5182 |
| RPS16P1 | 0 | 0 |
| RPS16P10 | 0 | 0 |
| RPS16P2 | 0 | 0 |
| RPS16P3 | 0 | 0 |
| RPS16P4 | 0 | 0 |
| RPS16P5 | 0 | 0 |
| RPS16P6 | 0 | 0 |
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| RPS16P8 | 0 | 0 |
| RPS16P9 | 0 | 0 |
| RPS17 | 105.603518 | 94.11226 |
| RPS17P1 | 0 | 0 |
| RPS17P10 | 0 | 0 |
| RPS17P11 | 0 | 0 |
| RPS17P12 | 0 | 0 |
| RPS17P13 | 0 | 0 |
| RPS17P14 | 0 | 0 |
| RPS17P15 | 0 | 0 |
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| RPS17P3 | 0 | 0 |
| RPS17P5 | 0 | 0 |
| RPS17P6 | 0 | 0 |
| RPS17P7 | 0 | 0 |

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|----------|------------|----------|
| RPS17P8 | 0 | 0 |
| RPS17P9 | 0 | 0 |
| RPS18 | 94.8079499 | 87.38777 |
| RPS18P1 | 0 | 0 |
| RPS18P10 | 0 | 0 |
| RPS18P11 | 0 | 0 |
| RPS18P12 | 0 | 0 |
| RPS18P13 | 0 | 0 |
| RPS18P14 | 0 | 0 |
| RPS18P2 | 0 | 0 |
| RPS18P3 | 0 | 0 |
| RPS18P4 | 0 | 0 |
| RPS18P5 | 0 | 0 |
| RPS18P6 | 0 | 0 |
| RPS18P7 | 0 | 0 |
| RPS18P8 | 0 | 0 |
| RPS18P9 | 0 | 0 |
| RPS19 | 29.5444285 | 33.81614 |
| RPS19BP1 | 52.3251764 | 67.4297 |
| RPS19P1 | 0 | 0 |
| RPS19P2 | 0 | 0 |
| RPS19P3 | 0 | 0 |
| RPS19P4 | 0 | 0 |
| RPS19P5 | 0 | 0 |
| RPS19P6 | 0 | 0 |
| RPS19P7 | 0 | 0 |
| RPS2 | 34.2833422 | 36.99403 |
| RPS20 | 160.483979 | 144.3154 |
| RPS20P1 | 0 | 0 |
| RPS20P10 | 0 | 0 |
| RPS20P11 | 0 | 0 |
| RPS20P12 | 0 | 0 |
| RPS20P13 | 0 | 0 |
| RPS20P14 | 0 | 0 |
| RPS20P15 | 0 | 0 |
| RPS20P16 | 0 | 0 |
| RPS20P17 | 0 | 0 |
| RPS20P18 | 0 | 0 |
| RPS20P19 | 0 | 0 |
| RPS20P2 | 0 | 0 |
| RPS20P20 | 0 | 0 |
| RPS20P21 | 0 | 0 |
| RPS20P22 | 0 | 0 |
| RPS20P23 | 0 | 0 |
| RPS20P24 | 0 | 0 |
| RPS20P25 | 0 | 0 |
| RPS20P26 | 0 | 0 |

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|----------|------------|----------|
| RPS20P27 | 0 | 0 |
| RPS20P28 | 0 | 0 |
| RPS20P29 | 0 | 0 |
| RPS20P3 | 0 | 0 |
| RPS20P30 | 0 | 0 |
| RPS20P31 | 0 | 0 |
| RPS20P32 | 0 | 0 |
| RPS20P33 | 0 | 0 |
| RPS20P34 | 0 | 0 |
| RPS20P35 | 0 | 0 |
| RPS20P4 | 0 | 0 |
| RPS20P5 | 0 | 0 |
| RPS20P6 | 0 | 0 |
| RPS20P7 | 0 | 0 |
| RPS20P8 | 0 | 0 |
| RPS20P9 | 0 | 0 |
| RPS21 | 63.28837 | 59.83341 |
| RPS21P1 | 0 | 0 |
| RPS21P2 | 0 | 0 |
| RPS21P3 | 0 | 0 |
| RPS21P4 | 0 | 0 |
| RPS21P5 | 0 | 0 |
| RPS21P6 | 0 | 0 |
| RPS21P7 | 0 | 0 |
| RPS23 | 13.126557 | 12.15877 |
| RPS23P1 | 0 | 0 |
| RPS23P2 | 0 | 0 |
| RPS23P3 | 0 | 0 |
| RPS23P4 | 0 | 0 |
| RPS23P5 | 0 | 0 |
| RPS23P6 | 0 | 0 |
| RPS23P7 | 0 | 0 |
| RPS23P8 | 0 | 0 |
| RPS24 | 39.9694383 | 36.78791 |
| RPS24P1 | 0 | 0 |
| RPS24P10 | 0 | 0 |
| RPS24P11 | 0 | 0 |
| RPS24P12 | 0 | 0 |
| RPS24P13 | 0 | 0 |
| RPS24P14 | 0 | 0 |
| RPS24P15 | 0 | 0 |
| RPS24P16 | 0 | 0 |
| RPS24P17 | 0 | 0 |
| RPS24P18 | 0 | 0 |
| RPS24P19 | 0 | 0 |
| RPS24P2 | 0 | 0 |
| RPS24P3 | 0 | 0 |

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| RPS24P4 | 0 | 0 |
| RPS24P5 | 0 | 0 |
| RPS24P6 | 0 | 0 |
| RPS24P7 | 0 | 0 |
| RPS24P8 | 0 | 0 |
| RPS24P9 | 0 | 0 |
| RPS25 | 221.193319 | 200.3048 |
| RPS25P1 | 0 | 0 |
| RPS25P10 | 0 | 0 |
| RPS25P2 | 0 | 0 |
| RPS25P3 | 0 | 0 |
| RPS25P4 | 0 | 0 |
| RPS25P5 | 0 | 0 |
| RPS25P6 | 0 | 0 |
| RPS25P7 | 0 | 0 |
| RPS25P8 | 0 | 0 |
| RPS25P9 | 0 | 0 |
| RPS26 | 2.2813409 | 2.836795 |
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| RPS26P10 | 0 | 0 |
| RPS26P11 | 0 | 0 |
| RPS26P12 | 0 | 0 |
| RPS26P13 | 0 | 0 |
| RPS26P14 | 0 | 0 |
| RPS26P15 | 0 | 0 |
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| RPS26P28 | 0 | 0 |
| RPS26P29 | 0 | 0 |
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| RPS26P30 | 0 | 0 |
| RPS26P31 | 0 | 0 |
| RPS26P32 | 0 | 0 |
| RPS26P33 | 0 | 0 |
| RPS26P34 | 0 | 0 |
| RPS26P35 | 0 | 0 |

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| RPS26P36 | 0 | 0 |
| RPS26P37 | 0 | 0 |
| RPS26P38 | 0 | 0 |
| RPS26P39 | 0 | 0 |
| RPS26P4 | 0 | 0 |
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| RPS26P47 | 0 | 0 |
| RPS26P48 | 0 | 0 |
| RPS26P49 | 0 | 0 |
| RPS26P5 | 0 | 0 |
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| RPS26P51 | 0 | 0 |
| RPS26P52 | 0 | 0 |
| RPS26P53 | 0 | 0 |
| RPS26P54 | 0 | 0 |
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| RPS26P56 | 0 | 0 |
| RPS26P57 | 0 | 0 |
| RPS26P58 | 0 | 0 |
| RPS26P6 | 0 | 0 |
| RPS26P7 | 0 | 0 |
| RPS26P8 | 0 | 0 |
| RPS26P9 | 0 | 0 |
| RPS27 | 209.115186 | 206.5279 |
| RPS27A | 137.929852 | 124.8872 |
| RPS27AP1 | 0 | 0 |
| RPS27AP10 | 0 | 0 |
| RPS27AP11 | 0 | 0 |
| RPS27AP12 | 0 | 0 |
| RPS27AP13 | 0 | 0 |
| RPS27AP14 | 0 | 0 |
| RPS27AP15 | 0 | 0 |
| RPS27AP16 | 0 | 0 |
| RPS27AP17 | 0 | 0 |
| RPS27AP2 | 0 | 0 |
| RPS27AP3 | 0 | 0 |
| RPS27AP4 | 0 | 0 |
| RPS27AP5 | 0 | 0 |
| RPS27AP6 | 0 | 0 |
| RPS27AP7 | 0 | 0 |
| RPS27AP8 | 0 | 0 |

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| RPS27AP9 | 0 | 0 |
| RPS27L | 10.2799127 | 10.75271 |
| RPS27P1 | 0 | 0 |
| RPS27P10 | 0 | 0 |
| RPS27P11 | 0 | 0 |
| RPS27P12 | 0 | 0 |
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| RPS27P14 | 0 | 0 |
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| RPS27P23 | 0 | 0 |
| RPS27P24 | 0 | 0 |
| RPS27P25 | 0 | 0 |
| RPS27P26 | 0 | 0 |
| RPS27P27 | 0 | 0 |
| RPS27P28 | 0 | 0 |
| RPS27P29 | 0 | 0 |
| RPS27P3 | 0 | 0 |
| RPS27P4 | 0 | 0 |
| RPS27P5 | 0 | 0 |
| RPS27P6 | 0 | 0 |
| RPS27P7 | 0 | 0 |
| RPS27P8 | 0 | 0 |
| RPS27P9 | 0 | 0 |
| RPS28 | 17.1725216 | 13.0055 |
| RPS28P1 | 0 | 0 |
| RPS28P2 | 0 | 0 |
| RPS28P3 | 0 | 0 |
| RPS28P4 | 0 | 0 |
| RPS28P5 | 0 | 0 |
| RPS28P6 | 0 | 0 |
| RPS28P7 | 0 | 0 |
| RPS28P8 | 0 | 0 |
| RPS28P9 | 0 | 0 |
| RPS29 | 109.793315 | 100.9571 |
| RPS29P1 | 0 | 0 |
| RPS29P10 | 0 | 0 |
| RPS29P11 | 0 | 0 |
| RPS29P12 | 0 | 0 |
| RPS29P13 | 0 | 0 |

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| RPS29P14 | 0 | 0 |
| RPS29P15 | 0 | 0 |
| RPS29P16 | 0 | 0 |
| RPS29P17 | 0 | 0 |
| RPS29P18 | 0 | 0 |
| RPS29P19 | 0 | 0 |
| RPS29P2 | 0 | 0 |
| RPS29P20 | 0 | 0 |
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| RPS29P9 | 0 | 0 |
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| RPS2P17 | 0 | 0 |
| RPS2P18 | 0 | 0 |
| RPS2P19 | 0 | 0 |
| RPS2P2 | 0 | 0 |
| RPS2P20 | 0 | 0 |
| RPS2P21 | 0 | 0 |
| RPS2P22 | 0 | 0 |
| RPS2P23 | 0 | 0 |
| RPS2P24 | 0 | 0 |
| RPS2P25 | 0 | 0 |
| RPS2P26 | 0 | 0 |
| RPS2P27 | 0 | 0 |
| RPS2P28 | 0 | 0 |
| RPS2P29 | 0 | 0 |
| RPS2P3 | 0 | 0 |
| RPS2P30 | 0 | 0 |

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|----------|------------|----------|
| RPS2P31 | 0 | 0 |
| RPS2P32 | 0 | 0 |
| RPS2P33 | 0 | 0 |
| RPS2P34 | 0 | 0 |
| RPS2P35 | 0 | 0 |
| RPS2P36 | 0 | 0 |
| RPS2P37 | 0 | 0 |
| RPS2P38 | 0 | 0 |
| RPS2P39 | 0 | 0 |
| RPS2P4 | 0 | 0 |
| RPS2P40 | 0 | 0 |
| RPS2P41 | 0 | 0 |
| RPS2P42 | 0 | 0 |
| RPS2P43 | 0 | 0 |
| RPS2P44 | 0 | 0 |
| RPS2P45 | 0 | 0 |
| RPS2P46 | 0 | 0 |
| RPS2P47 | 0 | 0 |
| RPS2P48 | 0 | 0 |
| RPS2P49 | 0 | 0 |
| RPS2P5 | 0 | 0 |
| RPS2P50 | 0 | 0 |
| RPS2P51 | 0 | 0 |
| RPS2P52 | 0 | 0 |
| RPS2P53 | 0 | 0 |
| RPS2P54 | 0 | 0 |
| RPS2P55 | 0 | 0 |
| RPS2P6 | 0 | 0 |
| RPS2P7 | 0 | 0 |
| RPS2P8 | 0 | 0 |
| RPS2P9 | 0 | 0 |
| RPS3 | 129.177033 | 120.1924 |
| RPS3A | 72.7639078 | 55.31844 |
| RPS3AP1 | 0 | 0 |
| RPS3AP10 | 0 | 0 |
| RPS3AP11 | 0 | 0 |
| RPS3AP12 | 0 | 0 |
| RPS3AP13 | 0 | 0 |
| RPS3AP14 | 0 | 0 |
| RPS3AP15 | 0 | 0 |
| RPS3AP16 | 0 | 0 |
| RPS3AP17 | 0 | 0 |
| RPS3AP18 | 0 | 0 |
| RPS3AP19 | 0 | 0 |
| RPS3AP2 | 0 | 0 |
| RPS3AP20 | 0 | 0 |
| RPS3AP21 | 0 | 0 |

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| RPS3AP22 | 0 | 0 |
| RPS3AP23 | 0 | 0 |
| RPS3AP24 | 0 | 0 |
| RPS3AP25 | 0 | 0 |
| RPS3AP26 | 0 | 0 |
| RPS3AP27 | 0 | 0 |
| RPS3AP28 | 0 | 0 |
| RPS3AP29 | 0 | 0 |
| RPS3AP3 | 0 | 0 |
| RPS3AP30 | 0 | 0 |
| RPS3AP31 | 0 | 0 |
| RPS3AP32 | 0 | 0 |
| RPS3AP33 | 0 | 0 |
| RPS3AP34 | 0 | 0 |
| RPS3AP35 | 0 | 0 |
| RPS3AP36 | 0 | 0 |
| RPS3AP37 | 0 | 0 |
| RPS3AP38 | 0 | 0 |
| RPS3AP39 | 0 | 0 |
| RPS3AP4 | 0 | 0 |
| RPS3AP40 | 0 | 0 |
| RPS3AP41 | 0 | 0 |
| RPS3AP42 | 0 | 0 |
| RPS3AP43 | 0 | 0 |
| RPS3AP44 | 0 | 0 |
| RPS3AP45 | 0 | 0 |
| RPS3AP46 | 0 | 0 |
| RPS3AP47 | 0 | 0 |
| RPS3AP48 | 0 | 0 |
| RPS3AP49 | 0 | 0 |
| RPS3AP5 | 0 | 0 |
| RPS3AP50 | 0 | 0 |
| RPS3AP51 | 0 | 0 |
| RPS3AP6 | 0 | 0 |
| RPS3AP7 | 0 | 0 |
| RPS3AP8 | 0 | 0 |
| RPS3AP9 | 0 | 0 |
| RPS3P1 | 0 | 0 |
| RPS3P2 | 0 | 0 |
| RPS3P3 | 0 | 0 |
| RPS3P4 | 0 | 0 |
| RPS3P5 | 0 | 0 |
| RPS3P6 | 0 | 0 |
| RPS3P7 | 0 | 0 |
| RPS4P1 | 0 | 0 |
| RPS4P10 | 0 | 0 |
| RPS4P11 | 0 | 0 |

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|----------|------------|----------|
| RPS4P12 | 0 | 0 |
| RPS4P13 | 0 | 0 |
| RPS4P14 | 0 | 0 |
| RPS4P15 | 0 | 0 |
| RPS4P16 | 0 | 0 |
| RPS4P17 | 0 | 0 |
| RPS4P18 | 0 | 0 |
| RPS4P19 | 0 | 0 |
| RPS4P2 | 0 | 0 |
| RPS4P20 | 0 | 0 |
| RPS4P21 | 0 | 0 |
| RPS4P22 | 0 | 0 |
| RPS4P3 | 0 | 0 |
| RPS4P4 | 0 | 0 |
| RPS4P5 | 0 | 0 |
| RPS4P6 | 0 | 0 |
| RPS4P7 | 0 | 0 |
| RPS4P8 | 0 | 0 |
| RPS4P9 | 0 | 0 |
| RPS4X | 53.7509507 | 52.36735 |
| RPS4Y1 | 0 | 0.026628 |
| RPS4Y1P1 | 0 | 0 |
| RPS4Y2 | 0 | 0 |
| RPS5 | 36.6879257 | 34.26433 |
| RPS5P1 | 0 | 0 |
| RPS5P2 | 0 | 0 |
| RPS5P3 | 0 | 0 |
| RPS5P4 | 0 | 0 |
| RPS5P5 | 0 | 0 |
| RPS5P6 | 0 | 0 |
| RPS5P7 | 0 | 0 |
| RPS5P8 | 0 | 0 |
| RPS6 | 139.061387 | 130.6622 |
| RPS6KA1 | 127.133955 | 142.4917 |
| RPS6KA2 | 15.2036798 | 15.7682 |
| RPS6KA3 | 37.0438516 | 29.54195 |
| RPS6KA4 | 5.31497847 | 6.144496 |
| RPS6KA5 | 2.69505631 | 2.08898 |
| RPS6KA6 | 0.03214882 | 0.027391 |
| RPS6KB1 | 5.85420477 | 5.653573 |
| RPS6KB2 | 28.2475915 | 29.89012 |
| RPS6KC1 | 3.85790492 | 3.225715 |
| RPS6KL1 | 0.02090686 | 0.015834 |
| RPS6P1 | 0 | 0 |
| RPS6P10 | 0 | 0 |
| RPS6P11 | 0 | 0 |
| RPS6P12 | 0 | 0 |

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| RPS6P13 | 0 | 0 |
| RPS6P14 | 0 | 0 |
| RPS6P15 | 0 | 0 |
| RPS6P16 | 0 | 0 |
| RPS6P17 | 0 | 0 |
| RPS6P18 | 0 | 0 |
| RPS6P19 | 0 | 0 |
| RPS6P2 | 0 | 0 |
| RPS6P20 | 0 | 0 |
| RPS6P21 | 0 | 0 |
| RPS6P22 | 0 | 0 |
| RPS6P23 | 0 | 0 |
| RPS6P24 | 0 | 0 |
| RPS6P25 | 0 | 0 |
| RPS6P26 | 0 | 0 |
| RPS6P3 | 0 | 0 |
| RPS6P4 | 0 | 0 |
| RPS6P5 | 0 | 0 |
| RPS6P6 | 0 | 0 |
| RPS6P7 | 0 | 0 |
| RPS6P8 | 0 | 0 |
| RPS6P9 | 0 | 0 |
| RPS7 | 83.7547525 | 80.94034 |
| RPS7P1 | 0 | 0 |
| RPS7P10 | 0 | 0 |
| RPS7P11 | 0 | 0 |
| RPS7P12 | 0 | 0 |
| RPS7P13 | 0 | 0 |
| RPS7P14 | 0 | 0 |
| RPS7P2 | 0 | 0 |
| RPS7P3 | 0 | 0 |
| RPS7P4 | 0 | 0 |
| RPS7P5 | 0 | 0 |
| RPS7P6 | 0 | 0 |
| RPS7P7 | 0 | 0 |
| RPS7P8 | 0 | 0 |
| RPS7P9 | 0 | 0 |
| RPS8 | 96.4182908 | 102.418 |
| RPS8P1 | 0 | 0 |
| RPS8P10 | 0 | 0 |
| RPS8P3 | 0 | 0 |
| RPS8P4 | 0 | 0 |
| RPS8P5 | 0 | 0 |
| RPS8P6 | 0 | 0 |
| RPS8P7 | 0 | 0 |
| RPS8P8 | 0 | 0 |
| RPS8P9 | 0 | 0 |

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|---------|------------|----------|
| RPS9 | 182.268683 | 173.6612 |
| RPS9P1 | 0 | 0 |
| RPS9P2 | 0 | 0 |
| RPS9P3 | 0 | 0 |
| RPS9P4 | 0 | 0 |
| RPSA | 30.4106574 | 27.44601 |
| RPSAP1 | 0 | 0 |
| RPSAP10 | 0 | 0 |
| RPSAP11 | 0 | 0 |
| RPSAP12 | 0 | 0 |
| RPSAP13 | 0 | 0 |
| RPSAP14 | 0 | 0 |
| RPSAP15 | 0 | 0 |
| RPSAP16 | 0 | 0 |
| RPSAP17 | 0 | 0 |
| RPSAP18 | 0 | 0 |
| RPSAP19 | 0 | 0 |
| RPSAP2 | 0 | 0 |
| RPSAP20 | 0 | 0 |
| RPSAP21 | 0 | 0 |
| RPSAP22 | 0 | 0 |
| RPSAP23 | 0 | 0 |
| RPSAP24 | 0 | 0 |
| RPSAP25 | 0 | 0 |
| RPSAP26 | 0 | 0 |
| RPSAP27 | 0 | 0 |
| RPSAP28 | 0 | 0 |
| RPSAP29 | 0 | 0 |
| RPSAP3 | 0 | 0 |
| RPSAP30 | 0 | 0 |
| RPSAP31 | 0 | 0 |
| RPSAP32 | 0 | 0 |
| RPSAP33 | 0 | 0 |
| RPSAP34 | 0 | 0 |
| RPSAP35 | 0 | 0 |
| RPSAP36 | 0 | 0 |
| RPSAP37 | 0 | 0 |
| RPSAP38 | 0 | 0 |
| RPSAP39 | 0 | 0 |
| RPSAP4 | 0 | 0 |
| RPSAP40 | 0 | 0 |
| RPSAP41 | 0 | 0 |
| RPSAP42 | 0 | 0 |
| RPSAP43 | 0 | 0 |
| RPSAP44 | 0 | 0 |
| RPSAP45 | 0 | 0 |
| RPSAP46 | 0 | 0 |

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|---------|------------|----------|
| RPSAP47 | 0 | 0 |
| RPSAP48 | 0 | 0 |
| RPSAP49 | 0 | 0 |
| RPSAP5 | 0 | 0 |
| RPSAP50 | 0 | 0 |
| RPSAP51 | 0 | 0 |
| RPSAP52 | 0 | 0 |
| RPSAP53 | 0 | 0 |
| RPSAP54 | 0 | 0 |
| RPSAP55 | 0 | 0 |
| RPSAP56 | 0 | 0 |
| RPSAP57 | 0 | 0 |
| RPSAP58 | 0 | 0 |
| RPSAP59 | 0 | 0 |
| RPSAP6 | 0 | 0 |
| RPSAP60 | 0 | 0 |
| RPSAP61 | 0 | 0 |
| RPSAP62 | 0 | 0 |
| RPSAP63 | 0 | 0 |
| RPSAP7 | 0 | 0 |
| RPSAP8 | 0 | 0 |
| RPSAP9 | 0 | 0 |
| RPTN | 0 | 0.006692 |
| RPUSD1 | 9.11781426 | 8.528732 |
| RPUSD2 | 0.8117447 | 0.740321 |
| RPUSD3 | 4.74654986 | 4.788702 |
| RPUSD4 | 1.69910119 | 1.445277 |
| RQCD1 | 10.8163647 | 11.25254 |
| RRAD | 0.07122402 | 0.178006 |
| RRAGA | 24.9707623 | 21.87541 |
| RRAGB | 2.6293572 | 2.44587 |
| RRAGC | 12.3352496 | 11.74379 |
| RRAGD | 4.63103615 | 4.868179 |
| RRAS | 0.42777886 | 0.340174 |
| RRAS2 | 0.02450505 | 0.046397 |
| RRBP1 | 28.7268565 | 31.14764 |
| RREB1 | 15.9659811 | 17.84611 |
| RRH | 0 | 0 |
| RRM1 | 3.90065683 | 3.383287 |
| RRM2 | 0.02477941 | 0.014075 |
| RRM2B | 33.2780238 | 40.38667 |
| RRM2P3 | 0 | 0 |
| RRM2P4 | 0 | 0 |
| RRN3 | 6.75212844 | 5.91708 |
| RRP1 | 1.6755106 | 1.639045 |
| RRP12 | 20.0894995 | 22.38487 |
| RRP15 | 0.15963126 | 0.126018 |

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| RRP1B | 1.0126216 | 1.112792 |
| RRP7A | 23.1889335 | 21.30829 |
| RRP7B | 0 | 0 |
| RRP8 | 7.22196255 | 7.105606 |
| RRP9 | 0.58592951 | 0.681105 |
| RRS1 | 0.23416254 | 0.140007 |
| RS1 | 0 | 0 |
| RSAD1 | 5.25002262 | 4.798049 |
| RSAD2 | 15.2301942 | 16.74406 |
| RSBN1 | 8.30425631 | 8.238243 |
| RSBN1L | 13.7709388 | 12.31344 |
| RSC1A1 | 1.44024651 | 1.326951 |
| RSF1 | 10.5904764 | 10.69108 |
| RSHL1 | 0.0085608 | 0.009725 |
| RSL1D1 | 0.91681412 | 0.753239 |
| RSL24D1 | 21.7532956 | 23.96619 |
| RSL24D1P | 0 | 0 |
| RSPH1 | 0.1230451 | 0.209672 |
| RSPH10B | 0.06769263 | 0.03845 |
| RSPH10B2 | 0.04738484 | 0.0769 |
| RSPH3 | 0.4828969 | 0.35109 |
| RSPH4A | 0.40934273 | 0.380471 |
| RSPH9 | 0.29872055 | 0.339351 |
| RSPO1 | 0 | 0.008002 |
| RSPO2 | 0 | 0.007585 |
| RSPO3 | 0 | 0 |
| RSPO4 | 0.01553405 | 0.008823 |
| RSPRY1 | 8.94997196 | 8.507341 |
| RSRC1 | 1.45401616 | 1.417904 |
| RSRC2 | 38.8338667 | 34.46237 |
| RSU1 | 6.41118614 | 6.939722 |
| RTBDN | 0.02920185 | 0 |
| RTCD1 | 6.23625905 | 5.572889 |
| RTDR1 | 0.0167934 | 0.038155 |
| RTEL1 | 1.374175 | 1.184982 |
| RTF1 | 25.0411231 | 22.92894 |
| RTKN | 0.0073799 | 0 |
| RTKN2 | 0.00316599 | 0.007193 |
| RTL1 | 0.00515706 | 0.011717 |
| RTN1 | 0.01699703 | 0.006436 |
| RTN2 | 0.69041148 | 0.888894 |
| RTN3 | 52.2168489 | 49.83905 |
| RTN4 | 16.3467504 | 15.47208 |
| RTN4IP1 | 0.27119167 | 0.24465 |
| RTN4R | 0.0219128 | 0 |
| RTN4RL1 | 0.01329035 | 0.045294 |
| RTN4RL2 | 0.08323567 | 0.13238 |

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| RTP1 | 0.00948369 | 0 |
| RTP2 | 0.0312412 | 0 |
| RTP3 | 0 | 0 |
| RTP4 | 0.43543585 | 0.518217 |
| RTTN | 1.78075309 | 1.410352 |
| RUFY1 | 23.53829 | 21.39026 |
| RUFY2 | 1.53734346 | 1.4678 |
| RUFY3 | 1.93124499 | 1.994184 |
| RUFY4 | 0.01566716 | 0 |
| RUNDC1 | 10.7323659 | 10.13308 |
| RUNDC2A | 1.59934679 | 1.689383 |
| RUNDC2B | 2.23856923 | 2.112688 |
| RUNDC2C | 0 | 0 |
| RUNDC3A | 0.05185038 | 0.078537 |
| RUNDC3B | 0.04614191 | 0.052418 |
| RUNX1 | 21.7656039 | 24.10059 |
| RUNX1T1 | 0.00507858 | 0.005769 |
| RUNX2 | 18.7463246 | 20.27973 |
| RUNX3 | 196.201138 | 287.0021 |
| RUSC1 | 1.54029867 | 1.339784 |
| RUSC2 | 0.26104912 | 0.263605 |
| RUVBL1 | 0.09513724 | 0.094568 |
| RUVBL2 | 5.18568311 | 4.911857 |
| RWDD1 | 8.00277662 | 9.309909 |
| RWDD1L1 | 0 | 0 |
| RWDD2A | 0.65379121 | 0.658318 |
| RWDD2B | 0.38227874 | 0.266168 |
| RWDD3 | 3.81210074 | 3.548427 |
| RWDD4A | 5.22187163 | 4.946511 |
| RXFP1 | 0 | 0 |
| RXFP2 | 0 | 0 |
| RXFP3 | 0 | 0.012897 |
| RXFP4 | 0.07338684 | 0.187579 |
| RXRA | 79.8140144 | 94.06546 |
| RXRB | 39.6300064 | 40.90792 |
| RXRG | 0.01987271 | 0 |
| RYBP | 18.36228 | 19.36601 |
| RYK | 18.4364977 | 18.64501 |
| RYKP | 0 | 0 |
| RYR1 | 0.02322335 | 0.006208 |
| RYR2 | 0.00385432 | 0.002919 |
| RYR3 | 0.0324319 | 0.035308 |
| S100A1 | 0 | 0 |
| S100A10 | 19.1320547 | 19.94576 |
| S100A11 | 973.748914 | 1275.963 |
| S100A11P | 0 | 0 |
| S100A12 | 0.13535621 | 0.153767 |

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| S100A13 | 0.79425698 | 0.663948 |
| S100A14 | 0.02015851 | 0 |
| S100A16 | 0 | 0 |
| S100A2 | 0.04366632 | 0 |
| S100A3 | 0 | 0 |
| S100A4 | 77.0928802 | 75.04329 |
| S100A5 | 0.02961314 | 0 |
| S100A6 | 145.545776 | 136.3165 |
| S100A7 | 0 | 0 |
| S100A7A | 0.00491361 | 0 |
| S100A7L2 | 0 | 0 |
| S100A7P1 | 0 | 0 |
| S100A7P2 | 0 | 0 |
| S100A8 | 170.676216 | 170.6497 |
| S100A9 | 163.429132 | 171.7493 |
| S100B | 0.01852452 | 0 |
| S100G | 0 | 0 |
| S100P | 216.519683 | 221.8973 |
| S100PBP | 4.89166449 | 4.923731 |
| S100Z | 4.67433252 | 3.623373 |
| S1PR1 | 101.597157 | 100.7638 |
| S1PR2 | 5.22113408 | 19.02012 |
| S1PR3 | 0.00999778 | 0.022715 |
| S1PR4 | 106.671647 | 139.8004 |
| S1PR5 | 0.06935783 | 0.033768 |
| SAA1 | 0 | 0.033359 |
| SAA2 | 0.02856703 | 0 |
| SAA3P | 0 | 0 |
| SAA4 | 0 | 0 |
| SAAL1 | 1.33210784 | 1.26368 |
| SAC3D1 | 0.25493382 | 0.106698 |
| SACM1L | 22.6814941 | 21.33358 |
| SACS | 0.40332498 | 0.383347 |
| SAE1 | 7.43712513 | 6.602664 |
| SAFB | 52.02151 | 49.92851 |
| SAFB2 | 35.9990673 | 32.48029 |
| SAG | 0.2163842 | 0.109252 |
| SAGE1 | 0.0069026 | 0 |
| SALL1 | 0.00784527 | 0 |
| SALL1P | 0 | 0 |
| SALL2 | 0.04707483 | 0.038893 |
| SALL3 | 0.01761284 | 0.010004 |
| SALL4 | 0.01206273 | 0.020555 |
| SAMD1 | 9.17733846 | 23.92188 |
| SAMD10 | 0.18316428 | 0.240932 |
| SAMD11 | 0.01646463 | 0.018704 |
| SAMD12 | 0.00402707 | 0 |

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| SAMD13 | 0 | 0.013247 |
| SAMD14 | 0.11310022 | 0.115635 |
| SAMD3 | 0.09352149 | 0.05795 |
| SAMD4A | 0.03597148 | 0.112376 |
| SAMD4B | 18.1018978 | 19.3472 |
| SAMD5 | 0.003453 | 0.003923 |
| SAMD7 | 0 | 0.010545 |
| SAMD8 | 2.85373754 | 2.240719 |
| SAMD9 | 18.7770108 | 17.20455 |
| SAMD9L | 8.09709577 | 6.432538 |
| SAMHD1 | 1.08201444 | 0.66323 |
| SAMM50 | 10.8679887 | 10.10524 |
| SAMSN1 | 317.584951 | 238.4842 |
| SAP130 | 14.5173672 | 12.72186 |
| SAP18 | 17.4617155 | 16.88878 |
| SAP30 | 0.64459987 | 1.076876 |
| SAP30BP | 30.0230708 | 28.17096 |
| SAP30L | 10.1901082 | 9.88786 |
| SAPS1 | 92.0385742 | 96.89329 |
| SAPS2 | 14.0256391 | 13.48161 |
| SAPS3 | 20.3001733 | 19.00018 |
| SAR1A | 31.7227894 | 30.82827 |
| SAR1B | 9.38053228 | 7.961703 |
| SAR1P1 | 0 | 0 |
| SAR1P2 | 0 | 0 |
| SAR1P3 | 0 | 0 |
| SARDH | 0 | 0.006858 |
| SARM1 | 0.21929549 | 0.208171 |
| SARNP | 25.5921233 | 23.62828 |
| SARS | 28.0152827 | 24.41449 |
| SARS2 | 0.20442714 | 0.243844 |
| SART1 | 26.1984615 | 25.75559 |
| SART3 | 14.1115093 | 12.6203 |
| SASH1 | 0.00272737 | 0.003098 |
| SASH3 | 196.329833 | 242.271 |
| SASS6 | 2.25945465 | 2.052196 |
| SAT1 | 1121.81821 | 943.5887 |
| SAT2 | 16.3154765 | 14.00338 |
| SATB1 | 31.1507173 | 36.6927 |
| SATB2 | 0.00416178 | 0 |
| SATL1 | 0.33827884 | 0.221706 |
| SAV1 | 1.05438809 | 1.347527 |
| SBDS | 15.0648789 | 14.03343 |
| SBDSP | 0 | 0 |
| SBF1 | 20.5962426 | 21.04229 |
| SBF2 | 0.68680675 | 0.789856 |
| SBK1 | 0.02948264 | 0.023923 |

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| SBK2 | 0.0200815 | 0 |
| SBNO1 | 13.8055774 | 12.20833 |
| SBNO2 | 22.4613076 | 23.9599 |
| SBSN | 0 | 0 |
| SC4MOL | 1.06158754 | 1.183647 |
| SC4MOP | 0 | 0 |
| SC5DL | 2.25617636 | 2.03242 |
| SC65 | 0.0161609 | 0.027539 |
| SCAF1 | 17.5721374 | 17.54464 |
| SCAMP1 | 2.82178529 | 2.811588 |
| SCAMP2 | 40.2429069 | 43.40392 |
| SCAMP3 | 17.6026027 | 16.34876 |
| SCAMP4 | 6.07620412 | 9.540806 |
| SCAMP5 | 0.037301 | 0.021187 |
| SCAND1 | 23.7398131 | 28.5918 |
| SCAND2 | 0 | 0 |
| SCAND3 | 0.00431112 | 0 |
| SCAP | 21.8307667 | 17.48581 |
| SCAPER | 1.03012426 | 1.001601 |
| SCARA3 | 0 | 0 |
| SCARA5 | 0.00577143 | 0 |
| SCARB1 | 0.16869339 | 0.374566 |
| SCARB2 | 2.6126675 | 1.861308 |
| SCARF1 | 1.23421423 | 1.284212 |
| SCARF2 | 2.04978996 | 1.811129 |
| SCARNA1 | 0 | 0 |
| SCARNA10 | 0 | 0 |
| SCARNA11 | 0 | 0 |
| SCARNA12 | 0 | 0 |
| SCARNA13 | 0 | 0 |
| SCARNA14 | 0 | 0 |
| SCARNA15 | 0 | 0 |
| SCARNA16 | 0 | 0 |
| SCARNA17 | 0 | 0 |
| SCARNA18 | 0 | 0 |
| SCARNA2 | 0 | 0 |
| SCARNA20 | 0 | 0 |
| SCARNA21 | 0 | 0 |
| SCARNA22 | 0 | 0 |
| SCARNA23 | 0 | 0 |
| SCARNA27 | 0 | 0 |
| SCARNA3 | 0 | 0 |
| SCARNA4 | 0 | 0 |
| SCARNA5 | 0 | 0 |
| SCARNA6 | 0 | 0 |
| SCARNA7 | 0 | 0 |
| SCARNA8 | 0 | 0 |

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|----------|------------|----------|
| SCARNA9 | 0 | 0 |
| SCARNA9L | 0 | 0 |
| SCCPDH | 11.9829089 | 14.25962 |
| SCD | 0.44219332 | 0.615911 |
| SCD5 | 0.01468933 | 0.011125 |
| SCEL | 0 | 0 |
| SCFD1 | 13.5552922 | 12.15304 |
| SCFD2 | 0.26480266 | 0.180492 |
| SCG2 | 0 | 0 |
| SCG3 | 0.01270413 | 0.028864 |
| SCG5 | 0.03380278 | 0.057601 |
| SCGB1A1 | 0 | 0.0562 |
| SCGB1C1 | 0.04878267 | 0 |
| SCGB1D1 | 0 | 0 |
| SCGB1D2 | 0 | 0 |
| SCGB1D4 | 0.04844546 | 0 |
| SCGB2A1 | 0 | 0 |
| SCGB2A2 | 0 | 0 |
| SCGB3A1 | 1.03773093 | 1.435157 |
| SCGB3A2 | 0 | 0 |
| SCGBL | 0.04923965 | 0 |
| SCGN | 0.01418713 | 0 |
| SCHIP1 | 0.03993415 | 0.022683 |
| SCIN | 0.01275422 | 0.028978 |
| SCLT1 | 8.36743437 | 6.994198 |
| SCLY | 0.44443789 | 0.398085 |
| SCMH1 | 8.59275102 | 8.854733 |
| SCML1 | 0.7367172 | 0.984615 |
| SCML2 | 0.03505891 | 0.062586 |
| SCML4 | 0.78335118 | 0.637147 |
| SCN10A | 0 | 0.004066 |
| SCN11A | 0.009704 | 0.003675 |
| SCN1A | 0.00259572 | 0 |
| SCN1B | 0.36125998 | 0.328318 |
| SCN2A | 0.0022876 | 0 |
| SCN2B | 0.02563544 | 0.033976 |
| SCN3A | 0 | 0.005183 |
| SCN3B | 0.0693219 | 0.035438 |
| SCN4A | 0.00538766 | 0.015301 |
| SCN4B | 0.36649259 | 0.198258 |
| SCN5A | 0.00489189 | 0.005557 |
| SCN7A | 0 | 0.004171 |
| SCN8A | 0.03205525 | 0.013242 |
| SCN9A | 0 | 0 |
| SCNM1 | 33.2533498 | 30.90032 |
| SCNN1A | 0.53653157 | 0.693316 |
| SCNN1B | 0 | 0 |

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| SCNN1D | 0.39167904 | 0.293669 |
| SCNN1G | 0.00600895 | 0.006826 |
| SCO1 | 8.84646194 | 7.625805 |
| SCO2 | 11.0324643 | 14.43711 |
| SCOC | 3.94090728 | 3.330253 |
| SCP2 | 8.58659292 | 8.516358 |
| SCPEP1 | 85.5282358 | 76.92356 |
| SCRG1 | 0 | 0 |
| SCRIB | 5.39131714 | 4.852092 |
| SCRN1 | 8.51313833 | 7.40817 |
| SCRN2 | 6.68362484 | 5.365684 |
| SCRN3 | 0.77524519 | 0.764556 |
| SCRT1 | 0 | 0 |
| SCRT2 | 0.02938962 | 0.020032 |
| SCT | 0.12271594 | 0.325284 |
| SCTR | 0 | 0 |
| SCUBE1 | 0.12632775 | 0.106073 |
| SCUBE2 | 0.01125252 | 0.006392 |
| SCUBE3 | 0.04521577 | 0.032687 |
| SCXA | 0.03469527 | 0.078829 |
| SCXB | 0.03469527 | 0 |
| SCYE1 | 4.26180428 | 4.24087 |
| SCYE1P | 0 | 0 |
| SCYL1 | 14.2867481 | 14.88649 |
| SCYL2 | 23.5602999 | 22.42954 |
| SCYL3 | 5.20039822 | 4.492626 |
| SDAD1 | 2.21539273 | 1.796527 |
| SDAD1P1 | 0 | 0 |
| SDC1 | 0.01246684 | 0.014163 |
| SDC2 | 0.01206619 | 0.013707 |
| SDC3 | 0.02463425 | 0.013992 |
| SDC4 | 0.00804643 | 0 |
| SDC4P | 0 | 0 |
| SDCBP | 246.317525 | 210.2154 |
| SDCBP2 | 2.0832438 | 3.476854 |
| SDCCAG1 | 12.3774455 | 11.84113 |
| SDCCAG10 | 1.20289153 | 0.838275 |
| SDCCAG3 | 3.73842581 | 3.775032 |
| SDCCAG3L | 0 | 0 |
| SDCCAG8 | 2.55146105 | 2.008771 |
| SDF2 | 32.3105551 | 28.99541 |
| SDF2L1 | 2.04479763 | 1.63971 |
| SDF4 | 41.9326526 | 39.98354 |
| SDHA | 31.9338709 | 33.46913 |
| SDHALP1 | 0 | 0 |
| SDHALP2 | 0 | 0 |
| SDHAP3 | 0 | 0 |

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| SDHB | 26.9700473 | 24.75517 |
| SDHC | 6.98146924 | 7.914345 |
| SDHD | 16.9434902 | 16.20338 |
| SDHDP3 | 0 | 0 |
| SDHDP4 | 0 | 0 |
| SDHDP6 | 0 | 0 |
| SDHDP7 | 0 | 0 |
| SDK1 | 0.00395957 | 0.002249 |
| SDK2 | 0.01568762 | 0.011138 |
| SDPR | 0.09791368 | 0.074154 |
| SDR16C5 | 0 | 0 |
| SDR16C6 | 0 | 0 |
| SDR39U1 | 10.9482024 | 10.12837 |
| SDR42E1 | 0.04546018 | 0.034429 |
| SDR9C7 | 0 | 0 |
| SDS | 0.02619979 | 0.014882 |
| SDSL | 0.01505034 | 0.051292 |
| SEBOX | 0.04435724 | 0.075586 |
| SEC1 | 0 | 0 |
| SEC11A | 23.184114 | 19.80927 |
| SEC11B | 0 | 0 |
| SEC11C | 8.38862309 | 7.574817 |
| SEC13 | 21.09149 | 21.60032 |
| SEC14L1 | 143.330457 | 162.8299 |
| SEC14L2 | 0.04779472 | 0.044424 |
| SEC14L3 | 0 | 0 |
| SEC14L4 | 0 | 0.009558 |
| SEC14L5 | 0.00651342 | 0 |
| SEC16A | 50.9309693 | 69.63981 |
| SEC16B | 0.32917392 | 0.338333 |
| SEC22A | 2.44280257 | 2.257796 |
| SEC22B | 26.5905202 | 25.97063 |
| SEC22C | 17.1597789 | 12.50018 |
| SEC23A | 7.32410644 | 6.722157 |
| SEC23B | 12.8443876 | 10.26134 |
| SEC23IP | 9.96510501 | 9.141979 |
| SEC24A | 4.70411742 | 4.607242 |
| SEC24B | 13.9746496 | 13.42316 |
| SEC24C | 41.5958093 | 37.81018 |
| SEC24D | 16.3628099 | 13.23881 |
| SEC31A | 12.8978504 | 12.84388 |
| SEC31B | 3.20029973 | 3.273068 |
| SEC61A1 | 39.1304771 | 37.87064 |
| SEC61A2 | 1.73203408 | 1.227912 |
| SEC61B | 35.428805 | 39.05768 |
| SEC61G | 20.9350935 | 19.11834 |
| SEC62 | 69.7940699 | 65.79816 |

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| SEC63 | 9.93689488 | 9.811268 |
| SECISBP2 | 17.6231935 | 15.13573 |
| SECISBP2L | 16.822746 | 17.25055 |
| SECTM1 | 0.37775573 | 0.282602 |
| SEH1L | 1.33770294 | 1.403804 |
| SEL1L | 35.7900413 | 38.34905 |
| SEL1L2 | 0 | 0.010706 |
| SELE | 0.00542589 | 0 |
| SELENBP1 | 0 | 0.028018 |
| SELI | 1.92173956 | 1.574907 |
| SELK | 49.6845535 | 47.53662 |
| SELL | 28.212297 | 21.31407 |
| SELM | 0.42598355 | 0.276528 |
| SELO | 59.724655 | 73.98709 |
| SELP | 0.03314207 | 0.02259 |
| SELPLG | 179.98444 | 226.4342 |
| SELS | 10.9677835 | 12.89362 |
| SELT | 17.3383675 | 17.91041 |
| SELV | 0 | 0 |
| SEMA3A | 0.00743076 | 0 |
| SEMA3B | 1.29298243 | 1.672855 |
| SEMA3C | 0.18692795 | 0.156957 |
| SEMA3D | 0 | 0 |
| SEMA3E | 0.00324766 | 0.003689 |
| SEMA3F | 0.0358794 | 0.04076 |
| SEMA3G | 0.00447347 | 0.005082 |
| SEMA4A | 48.488449 | 55.12802 |
| SEMA4B | 5.15765983 | 7.155838 |
| SEMA4C | 0.16574022 | 0.154661 |
| SEMA4D | 85.054629 | 83.7649 |
| SEMA4F | 0.11317169 | 0.078257 |
| SEMA4G | 0.01911394 | 0.021714 |
| SEMA5A | 0.0035612 | 0.002023 |
| SEMA5B | 0.01340047 | 0.005074 |
| SEMA6A | 0.15631077 | 0.201944 |
| SEMA6B | 229.993571 | 227.1272 |
| SEMA6C | 0.2647074 | 0.190246 |
| SEMA6D | 0 | 0.00364 |
| SEMA7A | 105.911368 | 75.75174 |
| SEMG1 | 0.18147635 | 0.147257 |
| SEMG2 | 0 | 0 |
| SENP1 | 8.08358577 | 8.056044 |
| SENP2 | 13.1424755 | 12.43549 |
| SENP3 | 10.7412017 | 10.55791 |
| SENP5 | 10.032696 | 10.29165 |
| SENP6 | 21.1392379 | 19.83776 |
| SENP7 | 7.52974459 | 7.546997 |

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|-----------|------------|----------|
| SENP8 | 0.1022775 | 0.066394 |
| SEP15 | 31.1837653 | 31.2194 |
| SEPHS1 | 2.74946636 | 2.462004 |
| SEPHS2 | 23.4025901 | 21.42619 |
| SEPN1 | 14.2255875 | 15.04122 |
| SEPP1 | 0.08589559 | 0.097579 |
| SEPSECS | 3.57891404 | 3.083337 |
| SEPT1 | 24.7807989 | 29.1879 |
| SEPT10 | 0.00646138 | 0 |
| SEPT11 | 3.92876571 | 3.714984 |
| SEPT12 | 0 | 0 |
| SEPT13 | 0 | 0 |
| SEPT14 | 0 | 0 |
| SEPT2 | 53.4017948 | 52.90687 |
| SEPT3 | 0.00451575 | 0.01026 |
| SEPT4 | 0.05020375 | 0.045626 |
| SEPT5 | 20.309575 | 26.63613 |
| SEPT6 | 21.5807587 | 20.59234 |
| SEPT7 | 51.5508115 | 54.15094 |
| SEPT8 | 0.00712361 | 0.008093 |
| SEPT9 | 38.1621749 | 37.14089 |
| SEPW1 | 20.9053234 | 18.92268 |
| SEPW1P | 0 | 0 |
| SEPX1 | 103.527069 | 113.7469 |
| SERAC1 | 1.59502511 | 1.567937 |
| SERBP1 | 9.63920037 | 9.56605 |
| SERBP1P | 0 | 0 |
| SERBP1P2 | 0 | 0 |
| SERF1A | 1.29062763 | 0.488724 |
| SERF1B | 0.23373846 | 0.682793 |
| SERF2 | 93.0901797 | 87.48359 |
| SERGEF | 0.97104942 | 0.703444 |
| SERHL | 5.27976364 | 4.56053 |
| SERHL2 | 3.85617424 | 2.694463 |
| SERINC1 | 110.127565 | 103.0465 |
| SERINC2 | 4.63252159 | 8.491952 |
| SERINC3 | 42.4210164 | 39.02257 |
| SERINC4 | 3.45718529 | 3.719024 |
| SERINC5 | 6.15721568 | 8.010054 |
| SERP1 | 65.9195827 | 90.1565 |
| SERP2 | 0 | 0.121863 |
| SERPINA1 | 53.8549568 | 67.39915 |
| SERPINA10 | 0 | 0 |
| SERPINA11 | 0 | 0 |
| SERPINA12 | 0 | 0 |
| SERPINA13 | 0 | 0 |
| SERPINA2 | 0 | 0 |

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|-----------|------------|----------|
| SERPINA3 | 0 | 0 |
| SERPINA4 | 0.01265824 | 0.01438 |
| SERPINA5 | 0 | 0.010331 |
| SERPINA6 | 0 | 0 |
| SERPINA7 | 0 | 0.015331 |
| SERPINA9 | 0.0114206 | 0 |
| SERPINB1 | 127.160161 | 169.5787 |
| SERPINB10 | 0.07043662 | 0.100021 |
| SERPINB11 | 0 | 0 |
| SERPINB12 | 0 | 0 |
| SERPINB13 | 0 | 0.007511 |
| SERPINB2 | 1.03864747 | 0.28671 |
| SERPINB3 | 0 | 0 |
| SERPINB4 | 0 | 0 |
| SERPINB5 | 0.00798531 | 0 |
| SERPINB6 | 23.5800492 | 23.05798 |
| SERPINB7 | 0 | 0 |
| SERPINB8 | 1.25507787 | 1.3627 |
| SERPINB9 | 0.78115826 | 1.486697 |
| SERPINBP1 | 0 | 0 |
| SERPINC1 | 0.04045926 | 0.045962 |
| SERPIND1 | 0 | 0 |
| SERPINE1 | 0.0198602 | 0.007521 |
| SERPINE2 | 0.02758325 | 0.015668 |
| SERPINE3 | 0.10213554 | 0.116028 |
| SERPINF1 | 1.09080835 | 1.161727 |
| SERPINF2 | 1.22432969 | 1.568637 |
| SERPING1 | 0.01060279 | 0 |
| SERPINH1 | 0.06677737 | 0.108372 |
| SERPINHP1 | 0 | 0 |
| SERPINI1 | 0.06342483 | 0.048034 |
| SERPINI2 | 0 | 0 |
| SERTAD1 | 5.6358356 | 5.688819 |
| SERTAD2 | 12.3506766 | 11.58953 |
| SERTAD3 | 17.8571304 | 20.78389 |
| SERTAD4 | 0.01036752 | 0.011778 |
| SESN1 | 2.58339514 | 3.099264 |
| SESN2 | 10.4734504 | 15.21519 |
| SESN3 | 2.76175711 | 2.247869 |
| SESTD1 | 0.64396113 | 0.685828 |
| SET | 60.1072573 | 62.85171 |
| SETBP1 | 0.05557187 | 0.0849 |
| SETD1A | 5.91592219 | 5.560966 |
| SETD1B | 29.4098071 | 32.7688 |
| SETD2 | 20.8208869 | 22.23102 |
| SETD3 | 20.2862587 | 23.83444 |
| SETD4 | 2.83044785 | 2.537072 |

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| SETD5 | 27.7915024 | 29.91674 |
| SETD6 | 0.79976234 | 0.753134 |
| SETD7 | 0.07196348 | 0.047688 |
| SETD8 | 33.3073036 | 45.58227 |
| SETDB1 | 17.5163801 | 15.62256 |
| SETDB2 | 2.65207328 | 2.259598 |
| SETMAR | 1.0409552 | 0.981733 |
| SETP2 | 0 | 0 |
| SETX | 16.6565054 | 15.80415 |
| SEZ6 | 0.13401415 | 0.146604 |
| SEZ6L | 0 | 0 |
| SEZ6L2 | 0.01183859 | 0.006724 |
| SF1 | 84.7099101 | 81.55686 |
| SF3A1 | 38.983099 | 39.4011 |
| SF3A2 | 13.9022037 | 13.6507 |
| SF3A3 | 149.597339 | 189.2733 |
| SF3A3P1 | 0 | 0 |
| SF3A3P2 | 0 | 0 |
| SF3B1 | 173.180092 | 157.6858 |
| SF3B14 | 25.1158623 | 23.51336 |
| SF3B2 | 73.8937945 | 70.69794 |
| SF3B3 | 12.087143 | 10.75931 |
| SF3B4 | 29.7802299 | 28.31056 |
| SF3B4P | 0 | 0 |
| SF3B5 | 35.7744437 | 33.67249 |
| SF4 | 19.3129064 | 17.83038 |
| SFI1 | 7.74357203 | 7.482353 |
| SFMBT1 | 11.5727438 | 15.82229 |
| SFMBT2 | 9.02118257 | 5.25549 |
| SFN | 1.88668369 | 2.452083 |
| SFPQ | 39.3480893 | 36.91971 |
| SFPQP1 | 0 | 0 |
| SFRP1 | 0 | 0 |
| SFRP2 | 0.01056549 | 0.012003 |
| SFRP4 | 0.00706971 | 0 |
| SFRP5 | 0.01116587 | 0.012685 |
| SFRS1 | 33.1718096 | 32.8034 |
| SFRS11 | 82.6314449 | 77.22422 |
| SFRS12 | 13.7826479 | 14.36406 |
| SFRS12IP1 | 0.91694486 | 0.822183 |
| SFRS14 | 17.656262 | 18.31508 |
| SFRS15 | 12.7314314 | 12.37617 |
| SFRS16 | 43.3306284 | 42.50994 |
| SFRS17A | 59.8861685 | 57.85256 |
| SFRS18 | 97.0219183 | 90.4402 |
| SFRS2 | 126.042555 | 167.5687 |
| SFRS2B | 0.25717575 | 0.170884 |

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| SFRS2IP | 35.0754336 | 35.55724 |
| SFRS3 | 24.7836757 | 26.65043 |
| SFRS4 | 48.4330549 | 47.7891 |
| SFRS5 | 190.947191 | 168.6135 |
| SFRS6 | 25.604106 | 23.20304 |
| SFRS7 | 31.9223486 | 31.51414 |
| SFRS8 | 15.252274 | 14.27218 |
| SFRS9 | 81.4980155 | 82.74558 |
| SFRS9P1 | 0 | 0 |
| SFT2D1 | 83.9491869 | 94.12323 |
| SFT2D2 | 5.23177044 | 4.659829 |
| SFT2D3 | 3.34340909 | 3.288345 |
| SFTA1P | 0 | 0 |
| SFTA2 | 0.0463113 | 0 |
| SFTA3 | 0 | 0 |
| SFTPA1 | 0.01603763 | 0 |
| SFTPA1B | 0.06516115 | 0.024675 |
| SFTPA2 | 0 | 0 |
| SFTPA2B | 0.00961378 | 0.010921 |
| SFTPB | 0.01190562 | 0.02705 |
| SFTPC | 0 | 0 |
| SFTPD | 0.18026394 | 0.093083 |
| SFXN1 | 4.97690883 | 4.056715 |
| SFXN2 | 0.11489252 | 0.13052 |
| SFXN3 | 20.9572878 | 21.00189 |
| SFXN4 | 0.36355039 | 0.550665 |
| SFXN5 | 6.9373435 | 6.900143 |
| SGCA | 0 | 0.033336 |
| SGCB | 0.00982722 | 0.005582 |
| SGCD | 0 | 0 |
| SGCE | 0 | 0.013196 |
| SGCEP | 0 | 0 |
| SGCG | 0.01270413 | 0 |
| SGCZ | 0.0096535 | 0 |
| SGEF | 0.08116322 | 0.064542 |
| SGIP1 | 0.01343758 | 0.020354 |
| SGK1 | 152.628525 | 104.8174 |
| SGK196 | 3.08545105 | 2.499432 |
| SGK2 | 0.03764607 | 0.053458 |
| SGK269 | 2.4647006 | 2.608049 |
| SGK3 | 5.51890625 | 6.667282 |
| SGK493 | 0.02522031 | 0.00955 |
| SGMS1 | 9.518262 | 9.489128 |
| SGMS2 | 0.88060848 | 0.434474 |
| SGOL1 | 0.59559533 | 0.6488 |
| SGOL2 | 1.42802103 | 1.346126 |
| SGPL1 | 13.4448684 | 15.62465 |

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| SGPP1 | 7.85352344 | 4.908394 |
| SGPP2 | 0.80597102 | 0.398085 |
| SGSH | 0.06836271 | 0.08629 |
| SGSM1 | 0.00680872 | 0.007735 |
| SGSM2 | 38.2577216 | 39.92793 |
| SGSM3 | 27.3561432 | 29.52676 |
| SGTA | 16.157263 | 15.60012 |
| SGTB | 1.14900947 | 1.130086 |
| SH2B1 | 10.2226908 | 10.00539 |
| SH2B2 | 1.12615592 | 1.58637 |
| SH2B3 | 7.4712654 | 9.843882 |
| SH2D1A | 0.04203385 | 0.038201 |
| SH2D1B | 0.13270426 | 0.122488 |
| SH2D2A | 0.32729345 | 0.267704 |
| SH2D3A | 0.10699914 | 0.202588 |
| SH2D3C | 47.9325214 | 63.90211 |
| SH2D4A | 0 | 0 |
| SH2D4B | 0.02050752 | 0.023297 |
| SH2D5 | 0.03290349 | 0.062298 |
| SH2D6 | 0.0705548 | 0.026717 |
| SH2D7 | 0.01111275 | 0 |
| SH3BGR | 0.06539761 | 0.05572 |
| SH3BGRL | 54.8983423 | 52.43836 |
| SH3BGRL2 | 0.01810188 | 0.010282 |
| SH3BGRL3 | 330.408833 | 357.1199 |
| SH3BP1 | 85.9622615 | 124.1358 |
| SH3BP2 | 36.1252389 | 42.47067 |
| SH3BP4 | 0 | 0.02765 |
| SH3BP5 | 9.35152373 | 7.701826 |
| SH3BP5L | 20.1729527 | 15.97345 |
| SH3D19 | 0.02786394 | 0.013566 |
| SH3D20 | 3.93488298 | 4.243495 |
| SH3GL1 | 33.2291457 | 48.02442 |
| SH3GL2 | 0 | 0 |
| SH3GL3 | 0.01240433 | 0.014092 |
| SH3GLB1 | 10.5176142 | 10.22041 |
| SH3GLB2 | 17.4751869 | 19.27422 |
| SH3GLP1 | 0 | 0 |
| SH3GLP2 | 0 | 0 |
| SH3GLP3 | 0 | 0 |
| SH3KBP1 | 31.0946399 | 32.13739 |
| SH3PXD2A | 0.43931295 | 0.511809 |
| SH3PXD2B | 0.00270353 | 0.003071 |
| SH3RF1 | 0.01597366 | 0.031756 |
| SH3RF2 | 0 | 0.007849 |
| SH3RF3 (NC_000 | 0.1947574 | 0.163531 |
| SH3RF3 (NC_000 | 0.16729258 | 0.129232 |

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| SH3TC1 | 0.8538456 | 1.267144 |
| SH3TC2 | 0.00237306 | 0.001797 |
| SH3YL1 | 0.59211121 | 0.428049 |
| SHANK1 | 0.01899021 | 0.021573 |
| SHANK2 | 0.0041879 | 0.014273 |
| SHANK3 | 0.00588533 | 0.006686 |
| SHARPIN | 14.6343713 | 15.42799 |
| SHB | 0.60062397 | 0.674384 |
| SHBG | 0.01739068 | 0.059268 |
| SHC1 | 28.0281181 | 24.33492 |
| SHC1P1 | 0 | 0 |
| SHC2 | 0.00843037 | 0.009577 |
| SHC3 | 0.21828624 | 0.198381 |
| SHC4 | 0.06922299 | 0.178247 |
| SHCBP1 | 0.37707767 | 0.324967 |
| SHCL1 | 0 | 0 |
| SHD | 0 | 0.009272 |
| SHE | 0.31994337 | 0.390242 |
| SHF | 0.07569119 | 0.028662 |
| SHFM1 | 5.74185745 | 4.268624 |
| SHFM1P | 0 | 0 |
| SHH | 0 | 0.015156 |
| SHISA2 | 0.02911088 | 0.03307 |
| SHISA3 | 0 | 0 |
| SHISA4 | 2.50608678 | 2.470152 |
| SHISA5 | 44.3220966 | 41.38542 |
| SHKBP1 | 63.5738443 | 58.21301 |
| SHMT1 | 1.95312721 | 1.668829 |
| SHMT1P | 0 | 0 |
| SHMT2 | 8.51049196 | 8.995394 |
| SHOC2 | 19.6776216 | 21.05303 |
| SHOX (NC_00002 | 0.01438777 | 0 |
| SHOX (NC_00002 | 0 | 0 |
| SHOX2 | 0.00639846 | 0.007269 |
| SHPK | 3.63204649 | 3.553517 |
| SHPRH | 2.67001957 | 2.340721 |
| SHQ1 | 0.81207388 | 0.587064 |
| SHROOM1 | 0.00659101 | 0 |
| SHROOM2 | 0.01694452 | 0.006416 |
| SHROOM2P1 | 0 | 0 |
| SHROOM3 | 0.00381585 | 0.004335 |
| SHROOM4 | 0.00659722 | 0 |
| SI | 0 | 0 |
| SIAE | 0.15552376 | 0.176677 |
| SIAH1 | 20.0505354 | 18.49139 |
| SIAH1L | 0 | 0 |
| SIAH2 | 24.7729758 | 18.67961 |

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| SIAH3 | 0 | 0.005964 |
| SIDT1 | 0.85749051 | 0.615989 |
| SIDT2 | 11.5615178 | 12.8659 |
| SIGIRR | 6.97808764 | 8.069468 |
| SIGLEC1 | 0.00312877 | 0.007109 |
| SIGLEC10 | 382.607739 | 422.6744 |
| SIGLEC11 | 0.11957534 | 0.173573 |
| SIGLEC12 | 0.21792817 | 0.182986 |
| SIGLEC14 | 0.01990093 | 0.045216 |
| SIGLEC15 | 0.08382192 | 0.079353 |
| SIGLEC16 | 0 | 0 |
| SIGLEC5 | 0.06733493 | 0.038247 |
| SIGLEC6 | 0.01012781 | 0.057527 |
| SIGLEC7 | 11.7713084 | 11.11189 |
| SIGLEC8 | 116.890573 | 123.864 |
| SIGLEC9 | 0.14929229 | 0.0424 |
| SIGLECP1 | 0 | 0 |
| SIGLECP10 | 0 | 0 |
| SIGLECP11 | 0 | 0 |
| SIGLECP12 | 0 | 0 |
| SIGLECP13 | 0 | 0 |
| SIGLECP14 | 0 | 0 |
| SIGLECP15 | 0 | 0 |
| SIGLECP2 | 0 | 0 |
| SIGLECP3 | 0 | 0 |
| SIGLECP4 | 0 | 0 |
| SIGLECP5 | 0 | 0 |
| SIGLECP6 | 0 | 0 |
| SIGLECP7 | 0 | 0 |
| SIGLECP8 | 0 | 0 |
| SIGLECP9 | 0 | 0 |
| SIGMAR1 | 2.48850536 | 1.24041 |
| SIK1 | 6.58996242 | 6.506738 |
| SIK2 | 4.08589428 | 4.532327 |
| SIKE | 8.00855925 | 8.499422 |
| SIL1 | 4.3128884 | 4.587286 |
| SILV | 0.03955848 | 0.067409 |
| SIM1 | 0 | 0 |
| SIM2 | 0.0127195 | 0.01445 |
| SIN3A | 19.4012888 | 20.41048 |
| SIN3B | 12.3471041 | 9.672328 |
| SIP1 | 1.57806016 | 1.476342 |
| SIPA1 | 124.960588 | 153.6291 |
| SIPA1L1 | 45.1482843 | 42.10809 |
| SIPA1L2 | 0.14580673 | 0.099383 |
| SIPA1L3 | 1.47472261 | 1.603509 |
| SIRPA | 271.925423 | 298.0838 |

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| SIRPB1 | 19.8330036 | 13.62502 |
| SIRPB2 | 32.1131688 | 34.57566 |
| SIRPD | 2.7187928 | 1.441343 |
| SIRPG | 0.17153533 | 0.083514 |
| SIRT1 | 8.81377194 | 8.511805 |
| SIRT2 | 25.0484986 | 22.86407 |
| SIRT3 | 0.99982621 | 0.938285 |
| SIRT4 | 0.25137031 | 0.163178 |
| SIRT5 | 0.98099526 | 0.89609 |
| SIRT6 | 5.68043783 | 5.080696 |
| SIRT7 | 31.16364 | 29.14179 |
| SIT1 | 0.0169833 | 0 |
| SIVA1 | 29.5063659 | 29.49238 |
| SIX1 | 0.01564967 | 0.008889 |
| SIX2 | 0.00976106 | 0.011089 |
| SIX3 | 0 | 0.02815 |
| SIX4 | 0.25034183 | 0.111451 |
| SIX5 | 0.00668532 | 0.015189 |
| SIX6 | 0 | 0 |
| SKAP1 | 0.04002284 | 0.045467 |
| SKAP2 | 13.0303046 | 12.22826 |
| SKCG-1 | 0 | 0 |
| SKI | 180.806057 | 215.7319 |
| SKIL | 97.2685253 | 103.136 |
| SKINTL | 0 | 0 |
| SKIV2L | 35.3749933 | 32.91219 |
| SKIV2L2 | 7.7219579 | 6.761009 |
| SKP1 | 34.5098985 | 32.18605 |
| SKP2 | 12.101246 | 10.20425 |
| SLA | 25.5652213 | 18.94564 |
| SLA2 | 11.6882301 | 15.3554 |
| SLAIN1 | 0.13462547 | 0.116952 |
| SLAIN2 | 8.17438005 | 8.133891 |
| SLAMF1 | 0.13659635 | 0.07162 |
| SLAMF6 | 5.46212403 | 2.464545 |
| SLAMF7 | 0.20574279 | 0.197769 |
| SLAMF8 | 0 | 0 |
| SLAMF9 | 0 | 0 |
| SLBP | 19.0507781 | 26.84825 |
| SLC10A1 | 0.10652479 | 0.181521 |
| SLC10A2 | 0 | 0 |
| SLC10A3 | 15.6233319 | 18.9039 |
| SLC10A4 | 0.03818159 | 0.08675 |
| SLC10A5 | 0.01596456 | 0.018136 |
| SLC10A6 | 0 | 0.021063 |
| SLC10A7 | 2.21364431 | 1.720352 |
| SLC11A1 | 1.58290394 | 3.689419 |

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| SLC11A2 | 3.25680559 | 2.638605 |
| SLC12A1 | 0.15180744 | 0.202889 |
| SLC12A2 | 0.90108561 | 0.860003 |
| SLC12A3 | 0.01510712 | 0.00429 |
| SLC12A4 | 8.6236709 | 10.10141 |
| SLC12A5 | 0.00672165 | 0.015272 |
| SLC12A6 | 70.1630122 | 68.75571 |
| SLC12A7 | 0.05946078 | 0.027019 |
| SLC12A8 | 0.02396049 | 0.034024 |
| SLC12A9 | 11.9105245 | 11.76853 |
| SLC13A1 | 0.00553735 | 0 |
| SLC13A2 | 0 | 0 |
| SLC13A3 | 0.0299293 | 0.017 |
| SLC13A4 | 0.20328359 | 0.164952 |
| SLC13A5 | 0.0064043 | 0.007275 |
| SLC14A1 | 0.16902215 | 0.261834 |
| SLC14A2 | 0.04541108 | 0.040124 |
| SLC15A1 | 0.0067238 | 0.007638 |
| SLC15A2 | 3.04499671 | 2.775769 |
| SLC15A3 | 1.22506665 | 1.018314 |
| SLC15A4 | 9.31024874 | 9.446137 |
| SLC16A1 | 0.03226393 | 0.024435 |
| SLC16A10 | 0.02180297 | 0.016512 |
| SLC16A11 | 0.0116613 | 0.013247 |
| SLC16A12 | 0.00455389 | 0.005173 |
| SLC16A13 | 1.29904791 | 1.134133 |
| SLC16A14 | 10.7134197 | 7.66504 |
| SLC16A2 | 0.00480909 | 0.005463 |
| SLC16A3 | 351.338912 | 482.7671 |
| SLC16A4 | 0.44893945 | 0.198334 |
| SLC16A5 | 6.18007395 | 8.135053 |
| SLC16A6 | 0.72801297 | 1.375394 |
| SLC16A7 | 0.04156377 | 0.047217 |
| SLC16A8 | 0.25505412 | 0.075586 |
| SLC16A9 | 0 | 0.005991 |
| SLC17A1 | 0 | 0 |
| SLC17A2 | 0 | 0.010522 |
| SLC17A3 | 0.01162905 | 0.013211 |
| SLC17A4 | 0 | 0 |
| SLC17A5 | 5.27853813 | 5.052342 |
| SLC17A6 | 0 | 0 |
| SLC17A7 | 0.02119489 | 0.008026 |
| SLC17A8 | 0.00527877 | 0.011994 |
| SLC17A9 | 1.78455741 | 1.999641 |
| SLC18A1 | 0 | 0.008077 |
| SLC18A2 | 16.507216 | 31.72911 |
| SLC18A3 | 0 | 0 |

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| SLC19A1 | 16.1505361 | 18.01062 |
| SLC19A2 | 7.56518918 | 7.149776 |
| SLC19A3 | 0 | 0 |
| SLC1A1 | 0.02259573 | 0 |
| SLC1A2 | 0 | 0.003979 |
| SLC1A3 | 0 | 0.005728 |
| SLC1A4 | 6.5485873 | 12.81047 |
| SLC1A5 | 2.44617856 | 6.049504 |
| SLC1A6 | 0 | 0 |
| SLC1A7 | 0 | 0.008922 |
| SLC20A1 | 10.9349637 | 4.593849 |
| SLC20A1P1 | 0 | 0 |
| SLC20A2 | 2.17384439 | 2.397657 |
| SLC22A1 | 0.01103113 | 0.025063 |
| SLC22A10 | 0 | 0 |
| SLC22A11 | 0 | 0 |
| SLC22A12 | 0 | 0 |
| SLC22A13 | 0 | 0.046651 |
| SLC22A14 | 0.05317484 | 0.024163 |
| SLC22A15 | 9.23421845 | 11.63387 |
| SLC22A16 | 0.02133468 | 0 |
| SLC22A17 | 0.01744841 | 0.039643 |
| SLC22A18 | 7.85376978 | 8.025397 |
| SLC22A18AS | 0.08154621 | 0.046319 |
| SLC22A2 | 0.00836996 | 0 |
| SLC22A20 | 0.54646734 | 1.132952 |
| SLC22A23 | 0.07699236 | 0.069243 |
| SLC22A24 | 0 | 0 |
| SLC22A25 | 0 | 0 |
| SLC22A3 | 0 | 0 |
| SLC22A4 | 18.8863488 | 23.62359 |
| SLC22A5 | 0.63460603 | 0.771897 |
| SLC22A6 | 0 | 0.010877 |
| SLC22A7 | 0.01643246 | 0 |
| SLC22A8 | 0 | 0 |
| SLC22A9 | 0 | 0 |
| SLC23A1 | 0.0267158 | 0.080932 |
| SLC23A2 | 18.9276341 | 13.36069 |
| SLC23A3 | 0.29564154 | 0.345732 |
| SLC23A4 | 0 | 0 |
| SLC24A1 | 0.67800131 | 0.621145 |
| SLC24A2 | 0 | 0.010754 |
| SLC24A3 | 5.01169499 | 5.165178 |
| SLC24A4 | 0.03255415 | 0.021133 |
| SLC24A5 | 0.02600536 | 0.029542 |
| SLC24A6 | 58.9924441 | 68.41286 |
| SLC25A1 | 11.5507912 | 11.59921 |

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| SLC25A10 | 0.05577011 | 0.101369 |
| SLC25A11 | 12.2847803 | 12.9772 |
| SLC25A12 | 0.64145078 | 0.461509 |
| SLC25A13 | 4.70598317 | 4.507472 |
| SLC25A14 | 4.52143481 | 4.133097 |
| SLC25A15 | 0.45397075 | 0.928292 |
| SLC25A15P1 | 0 | 0 |
| SLC25A16 | 2.66227156 | 2.930458 |
| SLC25A17 | 2.58873228 | 2.202996 |
| SLC25A18 | 0.09066985 | 0.080113 |
| SLC25A19 | 3.18050618 | 2.675353 |
| SLC25A2 | 0.01483792 | 0.016856 |
| SLC25A20 | 30.0972885 | 28.8079 |
| SLC25A20P | 0 | 0 |
| SLC25A21 | 0 | 0 |
| SLC25A22 | 1.65668004 | 1.274913 |
| SLC25A23 | 0.03038343 | 0.02071 |
| SLC25A24 | 4.13844457 | 4.059955 |
| SLC25A25 | 5.01808155 | 4.856537 |
| SLC25A26 | 2.73400713 | 1.90061 |
| SLC25A27 | 0.06394998 | 0.064576 |
| SLC25A28 | 35.4523587 | 28.43173 |
| SLC25A29 | 12.5530984 | 13.51474 |
| SLC25A3 | 68.0820241 | 64.31508 |
| SLC25A30 | 4.0607354 | 2.921388 |
| SLC25A31 | 0 | 0 |
| SLC25A32 | 2.69769458 | 3.696505 |
| SLC25A33 | 2.33135087 | 2.468618 |
| SLC25A34 | 0.10272963 | 0.140043 |
| SLC25A35 | 2.97449925 | 2.958838 |
| SLC25A36 | 16.7264379 | 15.38363 |
| SLC25A37 | 35.793794 | 25.58844 |
| SLC25A38 | 14.4821371 | 10.58187 |
| SLC25A39 | 3.90470432 | 4.643503 |
| SLC25A4 | 0.06342483 | 0.12609 |
| SLC25A40 | 22.0661889 | 18.06755 |
| SLC25A41 | 0 | 0.0154 |
| SLC25A42 | 0.83562213 | 0.482295 |
| SLC25A43 | 0.16662726 | 0.14627 |
| SLC25A44 | 20.3711838 | 19.2817 |
| SLC25A45 | 3.8353294 | 2.779282 |
| SLC25A46 | 8.70481243 | 8.28688 |
| SLC25A5 | 32.1274917 | 32.83272 |
| SLC25A5P1 | 0 | 0 |
| SLC25A5P2 | 0 | 0 |
| SLC25A5P3 | 0 | 0 |
| SLC25A5P4 | 0 | 0 |

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| SLC25A5P5 | 0 | 0 |
| SLC25A5P6 | 0 | 0 |
| SLC25A5P7 | 0 | 0 |
| SLC25A5P8 | 0 | 0 |
| SLC25A5P9 | 0 | 0 |
| SLC25A6 (NC_00 | 5.53681619 | 4.568462 |
| SLC25A6 (NC_00 | 5.08631659 | 4.796336 |
| SLC25A6P1 | 0 | 0 |
| SLC26A1 | 0.01027631 | 0.011674 |
| SLC26A10 | 0 | 0.009915 |
| SLC26A11 | 0.10249117 | 0.074849 |
| SLC26A2 | 1.7757617 | 1.434586 |
| SLC26A3 | 0.01453029 | 0.016507 |
| SLC26A4 | 0.08529546 | 0.106587 |
| SLC26A5 | 0.02203913 | 0.008346 |
| SLC26A6 | 1.36046259 | 1.46286 |
| SLC26A7 | 0.0036477 | 0 |
| SLC26A8 | 0.18899174 | 0.087221 |
| SLC26A9 | 0.00815251 | 0 |
| SLC27A1 | 0.16597386 | 0.202017 |
| SLC27A2 | 0.14357887 | 0.152914 |
| SLC27A3 | 30.174356 | 28.07218 |
| SLC27A4 | 1.93278992 | 1.434079 |
| SLC27A5 | 0.08890203 | 0.020199 |
| SLC27A6 | 0 | 0 |
| SLC28A1 | 0 | 0 |
| SLC28A2 | 0 | 0.009717 |
| SLC28A3 | 0.20939669 | 0.118939 |
| SLC29A1 | 255.736375 | 252.144 |
| SLC29A2 | 0.08359973 | 0.085474 |
| SLC29A3 | 0.8532556 | 1.095744 |
| SLC29A4 | 0.03636342 | 0.049571 |
| SLC2A1 | 4.19933722 | 5.955007 |
| SLC2A10 | 0.16875856 | 0.140965 |
| SLC2A11 | 0.98645407 | 0.815002 |
| SLC2A12 | 0.24033241 | 0.2005 |
| SLC2A13 | 0.81062964 | 0.907245 |
| SLC2A14 | 0.41188575 | 0.652896 |
| SLC2A2 | 0 | 0.006945 |
| SLC2A3 | 120.957053 | 155.981 |
| SLC2A3P1 | 0 | 0 |
| SLC2A3P2 | 0 | 0 |
| SLC2A3P4 | 0 | 0 |
| SLC2A4 | 0.01335366 | 0 |
| SLC2A4RG | 22.363055 | 21.69468 |
| SLC2A5 | 0.03682195 | 0.050196 |
| SLC2A6 | 0.27252 | 0.206391 |

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| SLC2A7 | 0 | 0 |
| SLC2A8 | 3.77301157 | 3.585028 |
| SLC2A9 | 0.05056597 | 0 |
| SLC2AXP1 | 0 | 0 |
| SLC30A1 | 8.44972419 | 11.89521 |
| SLC30A10 | 0 | 0 |
| SLC30A2 | 0.00850195 | 0 |
| SLC30A3 | 0.0200911 | 0 |
| SLC30A4 | 0.0245222 | 0.039001 |
| SLC30A5 | 9.4762055 | 9.458296 |
| SLC30A6 | 2.42864027 | 2.19353 |
| SLC30A7 | 10.1825453 | 10.6605 |
| SLC30A8 | 0.00782629 | 0.013336 |
| SLC30A9 | 4.44878208 | 4.270168 |
| SLC31A1 | 1.8173842 | 1.699652 |
| SLC31A1P | 0 | 0 |
| SLC31A2 | 5.0844797 | 5.937617 |
| SLC32A1 | 0 | 0.009279 |
| SLC33A1 | 5.57459884 | 5.120163 |
| SLC34A1 | 0 | 0.009247 |
| SLC34A2 | 0 | 0 |
| SLC34A3 | 0.00989893 | 0.033736 |
| SLC35A1 | 8.58221799 | 6.992598 |
| SLC35A2 | 4.92498279 | 4.163233 |
| SLC35A3 | 3.67869914 | 3.434388 |
| SLC35A4 | 8.15849312 | 6.535369 |
| SLC35A5 | 6.0644492 | 4.208329 |
| SLC35B1 | 12.1790914 | 11.13699 |
| SLC35B2 | 17.923064 | 25.14962 |
| SLC35B3 | 5.81874848 | 5.564206 |
| SLC35B4 | 0.31772434 | 0.217265 |
| SLC35C1 | 2.21797467 | 1.645365 |
| SLC35C2 | 29.995911 | 33.93025 |
| SLC35D1 | 20.2980396 | 22.42046 |
| SLC35D2 | 4.09903439 | 4.553742 |
| SLC35D3 | 0.00891282 | 0.010125 |
| SLC35E1 | 31.8827078 | 39.29577 |
| SLC35E2 | 3.27877539 | 4.092204 |
| SLC35E3 | 1.57667586 | 1.241578 |
| SLC35E4 | 0.06616941 | 0.159735 |
| SLC35F1 | 0.00433333 | 0 |
| SLC35F2 | 0.01989779 | 0.097952 |
| SLC35F3 | 0.07999953 | 0.090881 |
| SLC35F4 | 0.01181862 | 0.013426 |
| SLC35F5 | 8.41603838 | 8.764024 |
| SLC36A1 | 6.8615492 | 5.713725 |
| SLC36A2 | 0.02458384 | 0.006982 |

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| SLC36A3 | 0.00704838 | 0 |
| SLC36A4 | 16.7520284 | 12.80009 |
| SLC37A1 | 20.2166644 | 22.98961 |
| SLC37A2 | 0.46600471 | 0.705852 |
| SLC37A3 | 2.71786217 | 2.596992 |
| SLC37A4 | 2.21105748 | 1.866564 |
| SLC38A1 | 5.33375015 | 4.10046 |
| SLC38A10 | 15.8278178 | 17.30516 |
| SLC38A11 | 0 | 0 |
| SLC38A2 | 59.1111424 | 55.99601 |
| SLC38A3 | 0.00857127 | 0 |
| SLC38A4 | 0 | 0 |
| SLC38A5 | 0.50739864 | 0.468335 |
| SLC38A6 | 0.08321371 | 0.126043 |
| SLC38A7 | 0.81129117 | 0.671849 |
| SLC38A8 | 0 | 0 |
| SLC38A9 | 2.92179885 | 2.564844 |
| SLC39A1 | 6.50598416 | 5.904848 |
| SLC39A10 | 1.70866491 | 1.616838 |
| SLC39A11 | 4.1559021 | 4.651357 |
| SLC39A12 | 0 | 0 |
| SLC39A13 | 1.10251633 | 1.878714 |
| SLC39A14 | 0.28948494 | 0.256781 |
| SLC39A2 | 0.08953299 | 0.084759 |
| SLC39A3 | 4.78235745 | 2.855565 |
| SLC39A4 | 1.34529895 | 1.574038 |
| SLC39A5 | 0.02990801 | 0.033976 |
| SLC39A6 | 11.5270705 | 10.92002 |
| SLC39A7 | 21.256661 | 19.06721 |
| SLC39A8 | 1.86472791 | 1.876375 |
| SLC39A9 | 9.20271846 | 7.69931 |
| SLC3A1 | 0.28987962 | 0.370471 |
| SLC3A2 | 27.7808788 | 31.48617 |
| SLC40A1 | 11.2176878 | 9.938484 |
| SLC41A1 | 1.01791363 | 0.979221 |
| SLC41A2 | 0.08898983 | 0.141531 |
| SLC41A3 | 1.23857208 | 1.199866 |
| SLC43A1 | 0.80801912 | 0.831867 |
| SLC43A2 | 66.7962364 | 78.0544 |
| SLC43A3 | 10.6169726 | 9.420314 |
| SLC44A1 | 6.830917 | 7.728464 |
| SLC44A2 | 92.1538302 | 100.1816 |
| SLC44A3 | 0 | 0 |
| SLC44A4 | 0.00798228 | 0 |
| SLC44A5 | 0.00995518 | 0.005655 |
| SLC45A1 | 0.51665745 | 0.706307 |
| SLC45A2 | 0.01395178 | 0 |

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| SLC45A3 | 1.19984887 | 2.909718 |
| SLC45A4 | 67.9212854 | 80.56272 |
| SLC46A1 | 0.01620574 | 0.033138 |
| SLC46A2 | 0.2605057 | 0.362763 |
| SLC46A3 | 1.11255115 | 1.04966 |
| SLC47A1 | 1.12212044 | 1.296599 |
| SLC47A2 | 0.00892795 | 0.010142 |
| SLC48A1 | 2.27300875 | 2.534939 |
| SLC4A1 | 0.00424497 | 0.004822 |
| SLC4A10 | 0 | 0 |
| SLC4A11 | 0.0407731 | 0.038599 |
| SLC4A1AP | 8.26854766 | 7.302249 |
| SLC4A2 | 18.5887885 | 22.3858 |
| SLC4A3 | 0.00977695 | 0.022214 |
| SLC4A4 | 0.00524977 | 0.005964 |
| SLC4A5 | 0.85468825 | 0.634845 |
| SLC4A7 | 0.97577919 | 1.086946 |
| SLC4A8 | 8.80253008 | 7.306787 |
| SLC4A9 | 0.0128556 | 0 |
| SLC5A1 | 0.00833842 | 0.004736 |
| SLC5A10 | 0.15727223 | 0.212163 |
| SLC5A11 | 0.06262865 | 0.040656 |
| SLC5A12 | 0 | 0 |
| SLC5A2 | 0.05550021 | 0.084065 |
| SLC5A3 | 0.00363257 | 0.002063 |
| SLC5A4 | 0 | 0 |
| SLC5A5 | 0.0176387 | 0.013359 |
| SLC5A6 | 8.55720942 | 6.25038 |
| SLC5A7 | 0 | 0 |
| SLC5A8 | 0.00639846 | 0 |
| SLC5A9 | 0.4816432 | 0.423133 |
| SLC6A1 | 0 | 0.005315 |
| SLC6A10P | 0 | 0 |
| SLC6A11 | 0.01056019 | 0 |
| SLC6A12 | 0.01102534 | 0.006262 |
| SLC6A13 | 0.03849031 | 0.021863 |
| SLC6A14 | 0.00463419 | 0 |
| SLC6A15 | 0 | 0 |
| SLC6A16 | 1.53250028 | 1.366723 |
| SLC6A17 | 0.00656734 | 0.00373 |
| SLC6A18 | 0 | 0.011261 |
| SLC6A19 | 0 | 0.009233 |
| SLC6A2 | 0 | 0 |
| SLC6A20 | 0 | 0.013191 |
| SLC6A21P | 0 | 0 |
| SLC6A3 | 0.01607032 | 0.006085 |
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| SLC6A5 | 0.00734381 | 0.008343 |
| SLC6A6 | 148.425619 | 168.4992 |
| SLC6A6P | 0 | 0 |
| SLC6A7 | 0.00562325 | 0.006388 |
| SLC6A8 | 0.27619482 | 0.470643 |
| SLC6A9 | 0.01729531 | 0.039295 |
| SLC7A1 | 1.27703903 | 1.785772 |
| SLC7A10 | 0.01080438 | 0.024548 |
| SLC7A11 | 1.07218728 | 0.331738 |
| SLC7A13 | 0 | 0 |
| SLC7A14 | 0 | 0.004714 |
| SLC7A2 | 0 | 0 |
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| SLC7A4 | 0.02727021 | 0.020653 |
| SLC7A5 | 13.055791 | 32.97544 |
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| SLC7A6 | 17.9020028 | 20.5138 |
| SLC7A6OS | 15.7526437 | 13.5998 |
| SLC7A7 | 0.18057603 | 0.142704 |
| SLC7A8 | 9.42980547 | 12.75626 |
| SLC7A9 | 0.03551576 | 0.013449 |
| SLC8A1 | 0.00336729 | 0.007651 |
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| SLC9A2 | 0.00772706 | 0 |
| SLC9A3 | 0.19685222 | 0.094612 |
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| SLC9A4 | 0 | 0.005772 |
| SLC9A5 | 0.07880981 | 0.070344 |
| SLC9A6 | 1.9926694 | 1.940318 |
| SLC9A7 | 0.06689878 | 0.065141 |
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| SLCO1C1 | 0.00624824 | 0 |
| SLCO2A1 | 0 | 0.005656 |
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| SLCO4A1 | 11.2776361 | 15.30678 |
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| SLCO5A1 | 0.02277934 | 0.012939 |
| SLCO6A1 | 0 | 0 |
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| SLFN13 | 31.057609 | 33.88589 |
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| SLFN5 | 3.68191765 | 3.474478 |
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| SLITRK6 | 0 | 0 |
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| SLPI | 0.03515942 | 0.039942 |
| SLTM | 35.3328988 | 36.75784 |
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| SMA5 | 0 | 0 |
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| SMAD5 | 11.3053753 | 7.460099 |
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| SMAGP | 0.39030074 | 0.346999 |
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| SMARCA2 | 36.9632403 | 39.29405 |

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| SMARCA4 | 12.2859508 | 17.70954 |
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| SMARCC1 | 12.3807316 | 11.27666 |
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| SMARCD3 | 1.22647764 | 1.156935 |
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| SMC1B | 0.08898565 | 0.15725 |
| SMC2 | 1.82610444 | 2.477961 |
| SMC3 | 25.0647306 | 26.33054 |
| SMC4 | 18.5430383 | 15.72241 |
| SMC5 | 13.1791639 | 12.81747 |
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| SMEK2 | 32.236011 | 31.49855 |
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| SMG5 | 30.2777668 | 27.13051 |
| SMG6 | 9.44519308 | 10.50577 |
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| SMNDC1 | 16.3207966 | 17.42236 |
| SMNP | 0 | 0 |
| SMO | 0.01124951 | 0.01278 |
| SMOC1 | 0.00573053 | 0.00651 |
| SMOC2 | 0 | 0 |
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| SMPD2 | 23.4532561 | 34.83245 |
| SMPD3 | 17.2145147 | 12.21681 |
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| SMPDL3B | 4.71241456 | 5.605796 |
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| SMR3B | 0 | 0 |
| SMS | 43.1841365 | 34.46927 |
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| SMTNL2 | 0.07874656 | 0.039759 |
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| SMUG1 | 6.06654454 | 5.689829 |
| SMURF1 | 15.5243685 | 16.82824 |
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| SNAP91 | 0.00944534 | 0 |
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| SNAR-B1 | 0 | 0 |
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| SNORD8 | 0 | 0 |
| SNORD80 | 0 | 0 |
| SNORD81 | 0 | 0 |
| SNORD82 | 0 | 0 |
| SNORD83A | 0 | 0 |
| SNORD83B | 0 | 0 |
| SNORD84 | 0 | 0 |
| SNORD85 | 0 | 0 |
| SNORD86 | 0 | 0 |
| SNORD87 | 0 | 0 |
| SNORD88A | 0 | 0 |
| SNORD88B | 0 | 0 |
| SNORD88C | 0 | 0 |
| SNORD89 | 0 | 0 |
| SNORD9 | 0 | 0 |
| SNORD90 | 0 | 0 |
| SNORD91A | 0 | 0 |
| SNORD91B | 0 | 0 |
| SNORD92 | 0 | 0 |
| SNORD93 | 0 | 0 |
| SNORD94 | 0 | 0 |
| SNORD95 | 0 | 0 |
| SNORD96A | 0 | 0 |
| SNORD96B | 0 | 0 |
| SNORD97 | 0 | 0 |
| SNORD98 | 0 | 0 |
| SNORD99 | 0 | 0 |
| SNPH | 0.02947083 | 0.038262 |
| SNRK | 20.388444 | 20.12559 |
| SNRNP200 | 50.4308963 | 45.82558 |
| SNRNP25 | 21.8384653 | 33.65029 |
| SNRNP27 | 13.7323565 | 12.94627 |
| SNRNP35 | 10.2873481 | 11.24779 |
| SNRNP40 | 10.7327582 | 10.663 |
| SNRNP48 | 3.63270156 | 3.331209 |
| SNRNP70 | 93.8541035 | 85.85225 |
| SNRPA | 8.67982218 | 7.703914 |
| SNRPA1 | 18.702419 | 18.15629 |
| SNRPB | 59.6842222 | 62.18829 |
| SNRPB2 | 25.0137427 | 24.1275 |
| SNRPC | 16.9559121 | 15.44325 |
| SNRPD1 | 1.57689982 | 1.492819 |
| SNRPD2 | 19.9251683 | 16.35852 |
| SNRPD3 | 15.3477326 | 12.33058 |

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| SNRPE | 3.24825734 | 2.94897 |
| SNRPEL1 | 0 | 0 |
| SNRPEP1 | 0 | 0 |
| SNRPF | 4.21567166 | 2.620434 |
| SNRPP1 | 0 | 0 |
| SNRPG | 27.6071737 | 26.91748 |
| SNRPGP | 0 | 0 |
| SNRPN | 10.2910129 | 11.69075 |
| SNTA1 | 0.58403697 | 0.592024 |
| SNTB1 | 12.1165073 | 9.765289 |
| SNTB2 | 1.82258268 | 1.412915 |
| SNTG1 | 0.0111304 | 0.012644 |
| SNTG2 | 0 | 0 |
| SNTN | 0 | 0.01506 |
| SNUPN | 0.54105329 | 0.356494 |
| SNURF | 0.01474427 | 0.033499 |
| SNW1 | 31.4539742 | 28.36567 |
| SNX1 | 18.219737 | 16.93545 |
| SNX10 | 1.50064426 | 3.678196 |
| SNX11 | 12.6222012 | 11.45531 |
| SNX12 | 4.58496314 | 4.464506 |
| SNX13 | 8.626623 | 7.243138 |
| SNX14 | 18.2659437 | 17.82013 |
| SNX15 | 6.01353101 | 4.691941 |
| SNX16 | 2.11713402 | 1.962781 |
| SNX17 | 28.8570866 | 24.46967 |
| SNX18 | 8.43035513 | 10.39903 |
| SNX19 | 6.12287526 | 5.564547 |
| SNX19P | 0 | 0 |
| SNX2 | 19.5111819 | 17.88209 |
| SNX20 | 26.3389534 | 29.40624 |
| SNX21 | 2.13951232 | 2.062941 |
| SNX22 | 0.04654196 | 0.112354 |
| SNX24 | 0.34435498 | 0.54767 |
| SNX25 | 0.94885558 | 1.077915 |
| SNX26 | 14.8359617 | 14.60093 |
| SNX27 | 5.73633941 | 4.787136 |
| SNX29 | 2.79817342 | 2.69104 |
| SNX3 | 54.2149074 | 57.44499 |
| SNX30 | 10.6564095 | 13.34941 |
| SNX31 | 0.00855732 | 0 |
| SNX32 | 0.07398943 | 0.056035 |
| SNX33 | 0.36418761 | 0.310292 |
| SNX4 | 9.3214522 | 8.441172 |
| SNX5 | 18.5663394 | 17.0314 |
| SNX6 | 18.0562587 | 17.55136 |
| SNX7 | 0 | 0.025182 |

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| SNX8 | 1.23843984 | 1.055165 |
| SNX9 | 1.80717726 | 1.808444 |
| SOAT1 | 1.02245199 | 1.091126 |
| SOAT2 | 0.02028493 | 0.011522 |
| SOBP | 0.02361639 | 0.030661 |
| SOCS1 | 2.36880785 | 2.632076 |
| SOCS2 | 1.23678417 | 0.399886 |
| SOCS2P1 | 0 | 0 |
| SOCS2P2 | 0 | 0 |
| SOCS3 | 64.3372051 | 49.14182 |
| SOCS4 | 7.89986412 | 7.394064 |
| SOCS5 | 4.79857403 | 4.170416 |
| SOCS6 | 2.76933028 | 3.852832 |
| SOCS7 | 4.3066284 | 3.805199 |
| SOD1 | 18.7617343 | 19.23666 |
| SOD2 | 59.5954482 | 50.7962 |
| SOD3 | 0 | 0.015621 |
| SOHLH1 | 0.01058144 | 0.012021 |
| SOHLH2 | 0.00997407 | 0 |
| SOLH | 5.4025882 | 6.384131 |
| SON | 53.5491397 | 50.56802 |
| SONP1 | 0 | 0 |
| SORBS1 | 0.26351008 | 0.230028 |
| SORBS2 | 0.00237065 | 0.005386 |
| SORBS3 | 0.05763874 | 0.058203 |
| SORCS1 | 0.00282865 | 0 |
| SORCS2 | 0 | 0 |
| SORCS3 | 0 | 0 |
| SORD | 81.2380167 | 36.21535 |
| SORD2 | 0 | 0 |
| SORL1 | 237.060414 | 232.2392 |
| SORT1 | 10.9950078 | 11.75537 |
| SOS1 | 9.25134784 | 8.872925 |
| SOS2 | 71.7148593 | 83.24048 |
| SOST | 0.00914145 | 0 |
| SOSTDC1 | 0 | 0 |
| SOX1 | 0 | 0.005814 |
| SOX10 | 0.01469275 | 0.016691 |
| SOX11 | 0.00723432 | 0.005479 |
| SOX12 | 4.33221722 | 4.916309 |
| SOX13 | 1.54863719 | 1.108344 |
| SOX14 | 0.02570334 | 0 |
| SOX15 | 0.42231655 | 0.359819 |
| SOX17 | 0 | 0 |
| SOX18 | 0.04932629 | 0.014009 |
| SOX2 | 0.03360021 | 0.03817 |
| SOX21 | 0.0167266 | 0.028503 |

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| SOX2OT | 0 | 0 |
| SOX3 | 0.02027515 | 0 |
| SOX30 | 0.00643961 | 0.014631 |
| SOX4 | 0.21546763 | 0.176238 |
| SOX5 | 0.00892038 | 0.015201 |
| SOX5P | 0 | 0 |
| SOX6 | 0.02757162 | 0.008949 |
| SOX7 | 0.01961318 | 0.014854 |
| SOX8 | 0.01379162 | 0.015668 |
| SOX9 | 0.01068632 | 0.01214 |
| SP1 | 27.3312923 | 24.53635 |
| SP100 | 19.7036166 | 21.50284 |
| SP110 | 29.8500473 | 24.99526 |
| SP140 | 7.98467586 | 6.25913 |
| SP140L | 9.0547621 | 9.462729 |
| SP2 | 10.5464465 | 10.03144 |
| SP3 | 34.296429 | 35.81364 |
| SP3P | 0 | 0 |
| SP4 | 2.79324652 | 1.434504 |
| SP5 | 0 | 0 |
| SP6 | 0.02770866 | 0.050364 |
| SP7 | 0.00706971 | 0.008031 |
| SP8 | 0.01127666 | 0.006405 |
| SP9 | 0.0289008 | 0 |
| SPA17 | 0.08946949 | 0.050819 |
| SPA17P1 | 0 | 0 |
| SPACA1 | 0.04207871 | 0 |
| SPACA3 | 0 | 0 |
| SPACA4 | 0 | 0 |
| SPACA5 | 0.08570108 | 0.032453 |
| SPACA5B | 0 | 0 |
| SPAG1 | 2.10466982 | 4.05974 |
| SPAG11A | 0 | 0 |
| SPAG11B | 0.0156206 | 0 |
| SPAG16 | 0.09775726 | 0.068341 |
| SPAG17 | 0.01180369 | 0 |
| SPAG4 | 9.60040939 | 10.42917 |
| SPAG4L | 0 | 0.019078 |
| SPAG5 | 1.50733071 | 1.430096 |
| SPAG6 | 0.0810537 | 0.055247 |
| SPAG7 | 21.0458435 | 20.99559 |
| SPAG8 | 0.08114407 | 0.010242 |
| SPAG9 | 9.08818851 | 8.381297 |
| SPAM1 | 0 | 0.009508 |
| SPANXA1 | 0 | 0 |
| SPANXA2 | 0 | 0 |
| SPANXB1 | 0 | 0 |

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| SPANXB2 | 0 | 0 |
| SPANXC | 0 | 0 |
| SPANXD | 0 | 0 |
| SPANXN1 | 0 | 0 |
| SPANXN2 | 0 | 0 |
| SPANXN3 | 0.03539618 | 0 |
| SPANXN4 | 0 | 0 |
| SPANXN5 | 0 | 0 |
| SPARC | 0.1004075 | 0.060834 |
| SPARCL1 | 0.01398426 | 0 |
| SPAST | 11.2084011 | 13.2186 |
| SPATA1 | 1.98472332 | 1.95325 |
| SPATA12 | 0 | 0 |
| SPATA13 | 0.1620565 | 0.211373 |
| SPATA16 | 0.01010347 | 0 |
| SPATA17 | 0 | 0 |
| SPATA18 | 0 | 0 |
| SPATA19 | 0 | 0 |
| SPATA2 | 3.80946763 | 4.133428 |
| SPATA20 | 2.93564268 | 2.629469 |
| SPATA21 | 0.05217204 | 0.023707 |
| SPATA22 | 0.01443056 | 0 |
| SPATA2L | 4.50089087 | 6.082095 |
| SPATA3 | 0 | 0.054908 |
| SPATA4 | 0 | 0 |
| SPATA5 | 0.08264471 | 0.102687 |
| SPATA5L1 | 5.68161594 | 6.026016 |
| SPATA6 | 2.58736103 | 2.843138 |
| SPATA7 | 0.05285402 | 0.048034 |
| SPATA8 | 0.06147758 | 0.093119 |
| SPATA9 | 3.01095057 | 2.098936 |
| SPATC1 | 0.04130713 | 0.070388 |
| SPATS1 | 0.01552831 | 0 |
| SPATS2 | 0.1384703 | 0.20135 |
| SPC24 | 0.03214882 | 0.036522 |
| SPC25 | 0 | 0 |
| SPCS1 | 36.3728537 | 33.9895 |
| SPCS2 | 11.6384679 | 11.06053 |
| SPCS3 | 29.1225537 | 31.37909 |
| SPDEF | 0.04440408 | 0.063055 |
| SPDYA | 0.0779799 | 0.155026 |
| SPDYC | 0 | 0 |
| SPDYE1 | 0.00793409 | 0 |
| SPDYE2 | 0 | 0 |
| SPDYE3 | 0.36460111 | 0.163167 |
| SPDYE4 | 2.05014061 | 2.924179 |
| SPDYE5 | 0.18132081 | 0.188072 |

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| SPDYE6 | 0.08343385 | 0.065618 |
| SPDYE7P | 0 | 0 |
| SPDYE8P | 0 | 0 |
| SPEF1 | 0 | 0 |
| SPEF2 | 0.00602014 | 0.003419 |
| SPEG | 0.0217163 | 0.020185 |
| SPEM1 | 0 | 0 |
| SPEN | 24.3802357 | 26.84853 |
| SPERT | 0 | 0 |
| SPESP1 | 0.01498598 | 0 |
| SPG11 | 19.8428586 | 17.02749 |
| SPG20 | 8.7063187 | 7.623755 |
| SPG21 | 6.77945862 | 6.780454 |
| SPG7 | 17.7249943 | 18.17255 |
| SPHAR | 2.43392077 | 2.616089 |
| SPHK1 | 0.27250328 | 0.735224 |
| SPHK2 | 2.47649021 | 2.490887 |
| SPHKAP | 0 | 0 |
| SPI1 | 392.418091 | 480.8744 |
| SPIB | 0.10005256 | 0.178611 |
| SPIC | 0 | 0 |
| SPIN1 | 10.2646268 | 13.16183 |
| SPIN2A | 0.03188071 | 0.054325 |
| SPIN2B | 0.04998098 | 0.075706 |
| SPIN3 | 0.52810878 | 0.503521 |
| SPIN4 | 2.94006938 | 2.974021 |
| SPINK1 | 0 | 0 |
| SPINK2 | 0.21345514 | 0.242488 |
| SPINK4 | 0 | 0.12981 |
| SPINK5 | 0.01097355 | 0 |
| SPINK5L2 | 0 | 0 |
| SPINK5L3 | 0.04130713 | 0 |
| SPINK6 | 0 | 0 |
| SPINK7 | 0 | 0 |
| SPINK8 | 0.09556969 | 0.217137 |
| SPINK9 | 0 | 0 |
| SPINLW1 | 0 | 0 |
| SPINT1 | 1.46067206 | 1.261103 |
| SPINT2 | 44.0692021 | 44.73841 |
| SPINT3 | 0 | 0 |
| SPINT4 | 0 | 0 |
| SPIRE1 | 0.56691537 | 0.726149 |
| SPIRE2 | 0.57035423 | 0.390231 |
| SPN | 18.3719119 | 23.14865 |
| SPNS1 | 11.1349697 | 11.64574 |
| SPNS2 | 7.3678097 | 10.38555 |
| SPNS3 | 131.30558 | 146.2379 |

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| SPO11 | 0 | 0 |
| SPOCD1 | 0.00540775 | 0.006143 |
| SPOCK1 | 0.00435578 | 0.014845 |
| SPOCK2 | 1.7141715 | 3.976933 |
| SPOCK3 | 0 | 0 |
| SPON1 | 0.00390515 | 0.004436 |
| SPON2 | 0.09644647 | 0.085217 |
| SPOP | 14.8469227 | 13.02617 |
| SPOPL | 28.1498894 | 28.74627 |
| SPP1 | 0.38815996 | 0.308669 |
| SPP2 | 0 | 0 |
| SPPL2A | 39.2368241 | 37.66955 |
| SPPL2B | 5.09370892 | 4.991199 |
| SPPL3 | 11.7081993 | 11.92501 |
| SPR | 0 | 0.016371 |
| SPRED1 | 0.00289805 | 0.003292 |
| SPRED2 | 0.31198878 | 0.467429 |
| SPRED3 | 0.08766643 | 0.016598 |
| SPRN | 0.2584267 | 0.286049 |
| SPRR1A | 0 | 0 |
| SPRR1B | 0 | 0 |
| SPRR2A | 0 | 0 |
| SPRR2B | 0 | 0 |
| SPRR2C | 0 | 0 |
| SPRR2D | 0 | 0 |
| SPRR2E | 0 | 0 |
| SPRR2F | 0 | 0 |
| SPRR2G | 0 | 0 |
| SPRR3 | 0 | 0.024224 |
| SPRR4 | 0 | 0 |
| SPRY1 | 1.04403859 | 0.985329 |
| SPRY2 | 0.83663089 | 0.644932 |
| SPRY3 (NC_0000 | 0.1907587 | 0.10571 |
| SPRY3 (NC_0000 | 0.14888484 | 0.198206 |
| SPRY4 | 0 | 0 |
| SPRYD3 | 14.9502548 | 13.2354 |
| SPRYD4 | 0.81826158 | 0.566804 |
| SPRYD5 | 0.01290689 | 0.014662 |
| SPSB1 | 0.05394569 | 0.091925 |
| SPSB2 | 9.69855334 | 10.55529 |
| SPSB3 | 59.4809881 | 62.24979 |
| SPSB4 | 0.00872783 | 0 |
| SPTA1 | 0.00262259 | 0.002979 |
| SPTAN1 | 14.436059 | 14.03686 |
| SPTB | 3.07262076 | 1.703774 |
| SPTBN1 | 6.88037166 | 5.433936 |
| SPTBN2 | 0.06681496 | 0.051614 |

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| SPTBN4 | 0.01150308 | 0.018295 |
| SPTBN5 | 0.05739236 | 0.026487 |
| SPTLC1 | 12.270647 | 11.80796 |
| SPTLC2 | 8.0973973 | 6.705924 |
| SPTLC3 | 0.00546823 | 0 |
| SPTY2D1 | 8.20625928 | 8.068618 |
| SPZ1 | 0 | 0 |
| SQLE | 0.59791005 | 0.575352 |
| SQRDL | 29.4254034 | 42.65606 |
| SQSTM1 | 130.656964 | 134.156 |
| SR140 | 13.0760432 | 12.94417 |
| SRA1 | 13.1246419 | 15.47382 |
| SRBD1 | 7.71232362 | 6.970262 |
| SRC | 1.44639863 | 1.836441 |
| SRCAP | 31.8511482 | 35.69768 |
| SRCRB4D | 0.00749299 | 0.034049 |
| SRD5A1 | 0.80795221 | 0.801797 |
| SRD5A2 | 0 | 0 |
| SRD5A2L2 | 0 | 0 |
| SRD5A3 | 0.12646816 | 0.089794 |
| SRD5AP1 | 0 | 0 |
| SREBF1 | 10.4635179 | 15.68333 |
| SREBF2 | 10.0439168 | 9.457527 |
| SRF | 21.2298386 | 26.77256 |
| SRFBP1 | 0.44482365 | 0.395839 |
| SRGAP1 | 0.00496173 | 0.002818 |
| SRGAP2 | 0.62665123 | 0.470113 |
| SRGAP2P1 | 0 | 0 |
| SRGAP2P2 | 0 | 0 |
| SRGAP3 | 1.71601727 | 1.36112 |
| SRGN | 3427.56488 | 3009.981 |
| SRI | 31.1215042 | 25.92589 |
| SRIL | 0 | 0 |
| SRL | 0.0099788 | 0.005668 |
| SRM | 1.22221091 | 1.125771 |
| SRMP1 | 0 | 0 |
| SRMP2 | 0 | 0 |
| SRMS | 0 | 0.015755 |
| SRP14 | 78.4061854 | 76.17356 |
| SRP14P1 | 0 | 0 |
| SRP19 | 16.3741291 | 15.66281 |
| SRP54 | 20.242629 | 17.81658 |
| SRP68 | 15.7251084 | 15.75562 |
| SRP72 | 11.2449719 | 10.21095 |
| SRP9 | 26.9046365 | 26.45055 |
| SRPK1 | 40.5175147 | 27.1001 |
| SRPK2 | 24.3459768 | 21.72158 |

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| SRPK3 | 0.82029012 | 0.662113 |
| SRPR | 90.5174041 | 85.55993 |
| SRPRB | 0.77112962 | 0.930766 |
| SRPX | 0 | 0.02578 |
| SRPX2 | 0 | 0 |
| SRR | 0.56871101 | 0.462852 |
| SRRD | 2.55295975 | 2.235188 |
| SRRM1 | 39.6723517 | 39.55554 |
| SRRM1L | 0 | 0 |
| SRRM2 | 276.056099 | 262.6366 |
| SRrp35 | 0.05257793 | 0.066366 |
| SRRT | 44.7651836 | 45.28896 |
| SRXN1 | 9.8020191 | 14.87484 |
| SRY | 0 | 0 |
| SS18 | 12.8012201 | 14.27823 |
| SS18L1 | 5.38115331 | 5.740199 |
| SS18L2 | 11.7896641 | 10.31602 |
| SSB | 12.0930845 | 10.19079 |
| SSBP1 | 15.7689982 | 14.79508 |
| SSBP2 | 7.00484589 | 6.63339 |
| SSBP3 | 14.1899353 | 19.01416 |
| SSBP4 | 2.70070599 | 4.158342 |
| SSFA2 | 35.8896401 | 35.80736 |
| SSH1 | 27.0303285 | 33.22423 |
| SSH2 | 108.12929 | 88.12422 |
| SSH3 | 60.83701 | 68.067 |
| SSNA1 | 23.840625 | 21.93064 |
| SSPN | 0.14227333 | 0.186879 |
| SSPO | 0.01484459 | 0.018397 |
| SSR1 | 7.08376506 | 7.376462 |
| SSR2 | 67.2848002 | 63.17654 |
| SSR3 | 22.2948108 | 17.50068 |
| SSR4 | 20.3982018 | 20.21048 |
| SSRP1 | 6.16812654 | 6.422459 |
| SSSCA1 | 3.31132888 | 3.907808 |
| SST | 0 | 0 |
| SSTR1 | 0.00979973 | 0.005566 |
| SSTR2 | 0 | 0.007972 |
| SSTR3 | 0.04951797 | 0.067504 |
| SSTR4 | 0 | 0.018987 |
| SSTR5 | 0.01920122 | 0.021813 |
| SSU72 | 45.9233246 | 44.26902 |
| SSX1 | 0 | 0.019062 |
| SSX10 | 0 | 0 |
| SSX2 | 0 | 0 |
| SSX2B | 0 | 0 |
| SSX2IP | 2.6286331 | 2.464438 |

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| SSX3 | 0 | 0.015787 |
| SSX4 | 0 | 0 |
| SSX4B | 0 | 0 |
| SSX5 | 0.01519171 | 0 |
| SSX6 | 0 | 0 |
| SSX7 | 0 | 0 |
| SSX8 | 0 | 0 |
| SSX9 | 0 | 0 |
| SSXP1 | 0 | 0 |
| SSXP10 | 0 | 0 |
| SSXP2 | 0 | 0 |
| SSXP3 | 0 | 0 |
| SSXP4 | 0 | 0 |
| SSXP5 | 0 | 0 |
| SSXP6 | 0 | 0 |
| SSXP7 | 0 | 0 |
| SSXP8 | 0 | 0 |
| SSXP9 | 0 | 0 |
| ST13 | 17.6044386 | 15.36539 |
| ST13P | 0 | 0 |
| ST14 | 6.79819034 | 7.853134 |
| ST18 | 0 | 0 |
| ST20 | 22.5190224 | 24.64132 |
| ST3GAL1 | 19.5564834 | 14.75388 |
| ST3GAL2 | 56.026601 | 50.56666 |
| ST3GAL3 | 0.37759778 | 0.292471 |
| ST3GAL4 | 0.90470443 | 0.657765 |
| ST3GAL5 | 4.4146324 | 4.888252 |
| ST3GAL6 | 32.7975091 | 31.6834 |
| ST5 | 0.03128105 | 0.010153 |
| ST6GAL1 | 8.76094126 | 10.56933 |
| ST6GAL2 | 0.00297472 | 0 |
| ST6GALNAC1 | 0 | 0 |
| ST6GALNAC2 | 9.26912453 | 8.362625 |
| ST6GALNAC3 | 0.48514951 | 0.446868 |
| ST6GALNAC4 | 0.60924968 | 1.652607 |
| ST6GALNAC5 | 0 | 0.011754 |
| ST6GALNAC6 | 4.23487692 | 8.376721 |
| ST7 | 0.84473807 | 0.838737 |
| ST7L | 0.54256026 | 0.550137 |
| ST7OT1 | 0 | 0 |
| ST7OT2 | 0 | 0 |
| ST7OT3 | 0 | 0 |
| ST7OT4 | 0 | 0 |
| ST8SIA1 | 0.00216444 | 0.002459 |
| ST8SIA2 | 0 | 0.008491 |
| ST8SIA3 | 0.00621194 | 0.004705 |

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| ST8SIA4 | 10.5898804 | 11.88083 |
| ST8SIA5 | 0 | 0 |
| ST8SIA6 | 0 | 0.017085 |
| STAB1 | 0.02122163 | 0.048216 |
| STAB2 | 0.00255472 | 0.005804 |
| STAC | 0.41866167 | 0.257956 |
| STAC2 | 0.00654791 | 0.007439 |
| STAC3 | 1.97072487 | 1.613662 |
| STAG1 | 7.0776327 | 7.346775 |
| STAG2 | 33.9889325 | 30.8189 |
| STAG3 | 1.21501913 | 1.374601 |
| STAG3L1 | 23.9845369 | 21.16435 |
| STAG3L2 | 5.64364147 | 5.237963 |
| STAG3L3 | 1.95046309 | 1.858983 |
| STAG3L4 | 2.01882569 | 1.845922 |
| STAM | 15.0991082 | 13.02165 |
| STAM2 | 9.19051478 | 10.40705 |
| STAMPB | 8.08206546 | 6.890869 |
| STAMBPL1 | 4.92731842 | 7.570994 |
| STAP1 | 46.4060084 | 62.28149 |
| STAP2 | 0.01367946 | 0 |
| STAR | 0.28085785 | 0.230431 |
| STARD10 | 19.0052916 | 31.86283 |
| STARD13 | 0 | 0.007511 |
| STARD3 | 52.3260445 | 56.54841 |
| STARD3NL | 10.1810972 | 7.695821 |
| STARD4 | 13.6794667 | 15.37129 |
| STARD5 | 15.9447419 | 15.64511 |
| STARD6 | 0 | 0 |
| STARD7 | 19.1184546 | 22.86902 |
| STARD8 | 0.01643888 | 0.023344 |
| STARD9 | 0.08822588 | 0.100226 |
| STARP1 | 0 | 0 |
| STAT1 | 18.355302 | 17.01091 |
| STAT2 | 27.2911266 | 24.32223 |
| STAT3 | 53.8549499 | 59.88808 |
| STAT4 | 0.2132232 | 0.224923 |
| STAT5A | 38.6971681 | 50.18039 |
| STAT5B | 79.8417751 | 70.44091 |
| STAT6 | 59.1182214 | 48.84472 |
| STATH | 0 | 0 |
| STAU1 | 20.5361141 | 21.20623 |
| STAU2 | 2.21072876 | 2.245508 |
| STBD1 | 2.50281151 | 1.996106 |
| STC1 | 0.00542309 | 0 |
| STC2 | 0.00787023 | 0.008941 |
| STEAP1 | 0 | 0 |

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|---------------|------------|----------|
| STEAP2 | 0.00589358 | 0.003348 |
| STEAP3 | 0.13041211 | 0.131689 |
| STEAP4 | 0.04248495 | 0.010725 |
| STELLAR | 0 | 0 |
| STGC3 | 0 | 0 |
| STH | 0 | 0 |
| STIL | 0.10472869 | 0.099938 |
| STIM1 | 34.6464963 | 36.57888 |
| STIM2 | 7.23972767 | 6.635771 |
| STIP1 | 10.9090995 | 9.538851 |
| STK10 | 55.1535057 | 51.2504 |
| STK11 | 24.0096957 | 27.45767 |
| STK11IP | 11.2687833 | 11.07033 |
| STK16 | 4.1490576 | 3.265052 |
| STK16P | 0 | 0 |
| STK17A | 45.1245407 | 55.76836 |
| STK17B | 45.3746213 | 24.60072 |
| STK19 | 6.28698622 | 4.639448 |
| STK19P | 0 | 0 |
| STK24 | 52.3951077 | 69.55564 |
| STK25 | 17.5882147 | 15.86391 |
| STK3 | 0.29759846 | 0.371884 |
| STK31 | 0.14480255 | 0.118439 |
| STK32A | 0 | 0 |
| STK32B | 0 | 0 |
| STK32C | 1.22044158 | 2.062754 |
| STK33 | 0 | 0 |
| STK33P | 0 | 0 |
| STK35 | 6.16952771 | 5.916677 |
| STK36 | 0.99957892 | 0.878343 |
| STK38 | 29.1508923 | 28.01958 |
| STK38L | 18.439438 | 16.66991 |
| STK39 | 2.36326261 | 4.793072 |
| STK4 | 93.5429628 | 89.4739 |
| STK40 | 102.846997 | 119.2579 |
| STL | 0 | 0 |
| STMN1 | 6.12314608 | 7.81803 |
| STMN2 | 0 | 0.03322 |
| STMN3 | 6.89034128 | 6.143398 |
| STMN4 | 0 | 0.018177 |
| STOM | 0.9712417 | 1.087806 |
| STOML1 | 0.17997514 | 0.168374 |
| STOML2 | 5.3182691 | 4.747001 |
| STOML3 | 0.01052319 | 0 |
| STON1 | 0 | 0 |
| STON1-GTF2A1L | 0.06048082 | 0.081199 |
| STON2 | 0.02881169 | 0.016365 |

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|---------|------------|----------|
| STOX1 | 0.02338096 | 0.00664 |
| STOX2 | 0 | 0 |
| STRA13 | 3.6002279 | 2.91202 |
| STRA6 | 0.00484231 | 0.005501 |
| STRA8 | 0.04234709 | 0.07216 |
| STRADA | 13.8318543 | 14.77162 |
| STRADB | 1.32666362 | 0.925054 |
| STRAP | 19.5589602 | 17.6101 |
| STRBP | 1.78214086 | 1.592837 |
| STRC | 0.07243541 | 0.082288 |
| STRCP | 0 | 0 |
| STRN | 12.4737807 | 11.35555 |
| STRN3 | 5.23890293 | 4.689899 |
| STRN4 | 47.9194147 | 43.94562 |
| STS | 0.40224092 | 0.423242 |
| STSP1 | 0 | 0 |
| STT3A | 11.9566099 | 10.34482 |
| STT3B | 66.5929265 | 67.41936 |
| STUB1 | 17.7311 | 16.10232 |
| STX10 | 25.3985998 | 31.14618 |
| STX11 | 21.464632 | 23.41643 |
| STX12 | 7.73683013 | 7.338523 |
| STX16 | 27.5096994 | 26.1877 |
| STX17 | 4.69326293 | 4.59861 |
| STX18 | 7.11236868 | 7.869468 |
| STX19 | 0 | 0 |
| STX1A | 0.05027578 | 0.07996 |
| STX1B | 0.80359223 | 0.776641 |
| STX2 | 2.88284839 | 2.922592 |
| STX3 | 51.7128806 | 36.95616 |
| STX4 | 64.2592366 | 63.64193 |
| STX5 | 30.237098 | 29.87636 |
| STX6 | 15.05054 | 17.0134 |
| STX7 | 17.7656661 | 16.8762 |
| STX8 | 3.12773518 | 4.071325 |
| STXBP1 | 0.0432954 | 0.067628 |
| STXBP2 | 162.529146 | 171.897 |
| STXBP3 | 36.8594296 | 31.31879 |
| STXBP4 | 0.06259609 | 0.055308 |
| STXBP5 | 54.0749418 | 48.6279 |
| STXBP5L | 0.0022451 | 0.007651 |
| STXBP6 | 0 | 0 |
| STYK1 | 0.00702014 | 0 |
| STYX | 4.52919771 | 4.305702 |
| STYXL1 | 6.87480808 | 6.662866 |
| SUB1 | 22.8179098 | 24.29375 |
| SUB1P1 | 0 | 0 |

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|----------|------------|----------|
| SUCLA2 | 2.68160413 | 2.483433 |
| SUCLG1 | 17.4487079 | 15.59441 |
| SUCLG2 | 1.50180935 | 1.147541 |
| SUCNR1 | 5.72339757 | 2.59401 |
| SUDS3 | 8.62269812 | 7.532297 |
| SUFU | 4.19390534 | 4.383976 |
| SUGT1 | 8.33478965 | 6.994352 |
| SUGT1L1 | 0 | 0 |
| SUGT1P | 0 | 0 |
| SUGT1P2 | 0 | 0 |
| SULF1 | 0.00347929 | 0 |
| SULF2 | 4.54280951 | 3.941012 |
| SULT1A1 | 1.40682783 | 1.565339 |
| SULT1A2 | 0.90366752 | 0.461961 |
| SULT1A3 | 8.70522475 | 5.58716 |
| SULT1A4 | 12.4257587 | 16.59357 |
| SULT1B1 | 0.06424853 | 0.036494 |
| SULT1C2 | 0.0145504 | 0.008265 |
| SULT1C3 | 0 | 0 |
| SULT1C4 | 0 | 0.014354 |
| SULT1D1P | 0 | 0 |
| SULT1E1 | 0.04724793 | 0.013419 |
| SULT2A1 | 0 | 0 |
| SULT2B1 | 0.01496465 | 0 |
| SULT4A1 | 0.00852955 | 0 |
| SULT6B1 | 0 | 0 |
| SUMF1 | 1.50740269 | 1.356603 |
| SUMF2 | 7.67721432 | 6.767835 |
| SUMO1 | 17.7482984 | 16.43959 |
| SUMO1P1 | 0 | 0 |
| SUMO1P2 | 0 | 0 |
| SUMO1P3 | 0 | 0 |
| SUMO1P4 | 0 | 0 |
| SUMO2 | 107.039842 | 110.2166 |
| SUMO2P | 0 | 0 |
| SUMO3 | 30.4733491 | 30.54703 |
| SUMO4 | 0 | 0 |
| SUNC1 | 0.01463141 | 0 |
| SUOX | 10.9482024 | 9.536581 |
| SUPT16H | 20.1006473 | 19.14786 |
| SUPT16HP | 0 | 0 |
| SUPT3H | 0.89769098 | 0.999795 |
| SUPT4H1 | 54.3778036 | 51.21904 |
| SUPT4H1P | 0 | 0 |
| SUPT5H | 35.5963743 | 35.30923 |
| SUPT6H | 55.6489745 | 52.00914 |
| SUPT7L | 10.1499896 | 9.305159 |

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|----------|------------|----------|
| SUPV3L1 | 2.86400022 | 2.346031 |
| SURF1 | 20.4981771 | 17.87352 |
| SURF2 | 3.73672944 | 3.537487 |
| SURF4 | 47.4326934 | 62.05784 |
| SURF6 | 13.1759951 | 16.29795 |
| SURF6P1 | 0 | 0 |
| SUSD1 | 75.9396216 | 84.06825 |
| SUSD2 | 0.28403683 | 0.285151 |
| SUSD2P1 | 0 | 0 |
| SUSD2P2 | 0 | 0 |
| SUSD3 | 61.9805555 | 77.11478 |
| SUSD4 | 0.00653366 | 0 |
| SUSD5 | 0.00840173 | 0.014317 |
| SUV39H1 | 2.11793627 | 1.837316 |
| SUV39H2 | 0.49038673 | 0.580299 |
| SUV420H1 | 10.0199689 | 8.639644 |
| SUV420H2 | 4.14314664 | 4.479105 |
| SUZ12 | 16.6530765 | 16.73078 |
| SUZ12P | 0 | 0 |
| SV2A | 0.00952234 | 0.005409 |
| SV2B | 0 | 0 |
| SV2C | 0.00890149 | 0.020224 |
| SVEP1 | 0.0408788 | 0.038699 |
| SVIL | 22.5234504 | 24.27914 |
| SVIP | 16.6961411 | 15.04642 |
| SVOP | 0.01348642 | 0 |
| SVOPL | 0.21961588 | 0.236356 |
| SWAP70 | 123.380701 | 128.1213 |
| SYAP1 | 22.9272764 | 24.10944 |
| SYCE1 | 0 | 0 |
| SYCE2 | 0.65352047 | 1.177615 |
| SYCN | 0 | 0 |
| SYCP1 | 0 | 0.006842 |
| SYCP2 | 2.19461484 | 2.645668 |
| SYCP2L | 11.9031586 | 10.26373 |
| SYCP3 | 1.06813179 | 0.979247 |
| SYDE1 | 0 | 0.01468 |
| SYDE2 | 0.04016726 | 0.02535 |
| SYF2 | 35.7679097 | 34.90694 |
| SYF2P | 0 | 0 |
| SYK | 72.2120245 | 87.01105 |
| SYMPK | 15.216757 | 14.64588 |
| SYN1 | 0.05894953 | 0.022323 |
| SYN2 | 0 | 0.00421 |
| SYN3 | 0.0334266 | 0.007595 |
| SYNC | 0.07223131 | 0.164112 |
| SYNCRIP | 13.2448111 | 11.49451 |

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|-------------|------------|----------|
| SYNE1 | 57.7403588 | 53.48228 |
| SYNE2 | 36.7907886 | 33.34841 |
| SYNGAP1 | 0.95506079 | 0.727284 |
| SYNGR1 | 0.07457183 | 0.053504 |
| SYNGR2 | 28.3357914 | 34.91118 |
| SYNGR2P1 | 0 | 0 |
| SYNGR2P2 | 0 | 0 |
| SYNGR3 | 0.04144964 | 0.047087 |
| SYNGR4 | 0 | 0.023672 |
| SYNJ1 | 22.0310446 | 19.83593 |
| SYNJ2 | 0.03120411 | 0.038993 |
| SYNJ2BP | 0.0387152 | 0.050747 |
| SYNM | 0.04574453 | 0.058462 |
| SYNPO | 0.03684676 | 0.019319 |
| SYNPO2 | 0.01983234 | 0.012131 |
| SYNPO2L | 0.00417169 | 0.004739 |
| SYNPR | 0 | 0.007996 |
| SYP | 0.08641731 | 0.166891 |
| SYPL1 | 15.0512754 | 13.94266 |
| SYPL2 | 0 | 0.012641 |
| SYS1 | 9.73436329 | 10.98224 |
| SYS1-DBNDD2 | 0 | 0 |
| SYT1 | 0 | 0.004484 |
| SYT10 | 0 | 0 |
| SYT11 | 0.13215922 | 0.131937 |
| SYT12 | 0 | 0 |
| SYT13 | 0.00407705 | 0.013895 |
| SYT14 | 0 | 0.004788 |
| SYT14L | 0 | 0 |
| SYT15 | 0.15830445 | 0.194034 |
| SYT16 | 0.00670237 | 0 |
| SYT17 | 0.01099651 | 0 |
| SYT2 | 0.06215715 | 0.039911 |
| SYT3 | 0 | 0.008197 |
| SYT4 | 0 | 0 |
| SYT5 | 0.02304146 | 0.013088 |
| SYT6 | 0.03849031 | 0.021863 |
| SYT7 | 0.01391792 | 0.015811 |
| SYT8 | 0.04432607 | 0.016785 |
| SYT9 | 0.01594842 | 0.006039 |
| SYTL1 | 80.8001918 | 88.90848 |
| SYTL2 | 0.04142339 | 0.040335 |
| SYTL3 | 1.3943017 | 1.206319 |
| SYTL4 | 0.00519144 | 0 |
| SYTL5 | 0.00958747 | 0 |
| SYVN1 | 33.5054602 | 37.63216 |
| T | 0.02505004 | 0.018971 |

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|---------|------------|----------|
| TAAR1 | 0 | 0 |
| TAAR2 | 0.01991035 | 0 |
| TAAR3 | 0 | 0 |
| TAAR4P | 0 | 0 |
| TAAR5 | 0 | 0.020824 |
| TAAR6 | 0.02025562 | 0.023011 |
| TAAR7P | 0 | 0 |
| TAAR8 | 0 | 0 |
| TAAR9 | 0 | 0 |
| TAB3P1 | 0 | 0 |
| TAC1 | 0 | 0.020105 |
| TAC3 | 0 | 0 |
| TAC4 | 0.46722958 | 0.353853 |
| TACC1 | 60.4053824 | 55.97786 |
| TACC2 | 0.00208254 | 0 |
| TACC3 | 73.3958695 | 97.33547 |
| TACR1 | 0.01263288 | 0.009567 |
| TACR2 | 0.13053806 | 0.128521 |
| TACR3 | 0.01199391 | 0 |
| TACSTD2 | 0.96399925 | 0.887622 |
| TADA1L | 1.98193427 | 2.166546 |
| TADA2B | 33.0934418 | 31.25781 |
| TADA2L | 2.74664928 | 3.14471 |
| TADA3L | 44.9326805 | 42.29575 |
| TAF1 | 11.2944186 | 9.858973 |
| TAF10 | 69.8912905 | 67.89389 |
| TAF11 | 23.5626344 | 21.53243 |
| TAF12 | 16.0986511 | 17.0702 |
| TAF13 | 7.76151732 | 8.030695 |
| TAF13P | 0 | 0 |
| TAF15 | 28.2192348 | 24.12906 |
| TAF1A | 1.23086025 | 0.78812 |
| TAF1B | 2.19490188 | 1.828525 |
| TAF1C | 10.3465632 | 9.465175 |
| TAF1D | 68.981613 | 68.94923 |
| TAF1L | 0.01691227 | 0.026898 |
| TAF2 | 6.75574877 | 6.294821 |
| TAF2GL | 0 | 0 |
| TAF3 | 4.44621694 | 4.254803 |
| TAF4 | 4.70207812 | 5.873218 |
| TAF4B | 0.01327636 | 0.035192 |
| TAF5 | 4.27197667 | 3.873656 |
| TAF5L | 4.31632223 | 4.138837 |
| TAF6 | 9.0502335 | 7.915313 |
| TAF6L | 1.35580011 | 1.303255 |
| TAF7 | 76.9921052 | 74.33004 |
| TAF7L | 0 | 0 |

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| TAF8 | 6.12326895 | 4.525076 |
| TAF9 | 15.403439 | 14.19694 |
| TAF9B | 1.49343184 | 1.465617 |
| TAF9P1 | 0 | 0 |
| TAF9P2 | 0 | 0 |
| TAGAP | 20.8189112 | 27.67055 |
| TAGLN | 8.88546421 | 9.940624 |
| TAGLN2 | 576.202287 | 602.7302 |
| TAGLN3 | 0.04002284 | 0.015156 |
| tAKR | 0 | 0 |
| TAL1 | 0.01681354 | 0.023876 |
| TAL2 | 0 | 0.03641 |
| TALDO1 | 303.065853 | 258.3742 |
| TALDOP1 | 0 | 0 |
| TANC1 | 0.00280076 | 0.006363 |
| TANC2 | 1.29942881 | 1.124412 |
| TANK | 14.4635793 | 11.61184 |
| TAOK1 | 11.5499512 | 9.888087 |
| TAOK2 | 14.9296299 | 14.60806 |
| TAOK3 | 42.9570916 | 39.89206 |
| TAP1 | 98.7093705 | 93.21827 |
| TAP2 | 20.4353257 | 17.49638 |
| TAPBP | 52.0669809 | 51.55421 |
| TAPBPL | 15.0346151 | 13.17754 |
| TAPT1 | 17.2537862 | 18.79885 |
| TARBP1 | 1.75416017 | 1.606309 |
| TARBP2 | 1.48065711 | 1.309596 |
| TARBP2P | 0 | 0 |
| TARDBP | 28.0454083 | 27.0343 |
| TARDBPL | 0 | 0 |
| TARP | 1.45355258 | 0.697715 |
| TARS | 6.24120351 | 5.799472 |
| TARS2 | 8.27761979 | 7.155497 |
| TARSL2 | 1.6914732 | 1.870783 |
| TAS1R1 | 0.11685067 | 0.22124 |
| TAS1R2 | 0.00834008 | 0 |
| TAS1R3 | 0.2793518 | 0.308014 |
| TAS2R1 | 0 | 0 |
| TAS2R10 | 0.06826406 | 0 |
| TAS2R12 | 0 | 0 |
| TAS2R13 | 0 | 0 |
| TAS2R14 | 0 | 0 |
| TAS2R15 | 0 | 0 |
| TAS2R16 | 0 | 0 |
| TAS2R18 | 0 | 0 |
| TAS2R19 | 0 | 0 |
| TAS2R2 | 0 | 0 |

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| TAS2R20 | 0 | 0 |
| TAS2R3 | 0.03819315 | 0 |
| TAS2R30 | 0 | 0 |
| TAS2R31 | 0 | 0 |
| TAS2R38 | 0.01839487 | 0.062691 |
| TAS2R39 | 0 | 0 |
| TAS2R4 | 0.21025331 | 0.079617 |
| TAS2R40 | 0 | 0 |
| TAS2R41 | 0 | 0 |
| TAS2R42 | 0.02224903 | 0.025275 |
| TAS2R43 | 0 | 0 |
| TAS2R46 | 0 | 0 |
| TAS2R5 | 0.16454607 | 0.249236 |
| TAS2R50 | 0 | 0 |
| TAS2R60 | 0.02197004 | 0.124792 |
| TAS2R62P | 0 | 0 |
| TAS2R63P | 0 | 0 |
| TAS2R64P | 0 | 0 |
| TAS2R7 | 0 | 0 |
| TAS2R8 | 0 | 0 |
| TAS2R9 | 0 | 0.022219 |
| TASP1 | 0.66179264 | 0.792445 |
| TAT | 0 | 0 |
| TATDN1 | 1.17272762 | 0.904018 |
| TATDN2 | 40.8971759 | 43.46621 |
| TATDN3 | 7.61658999 | 6.268081 |
| TAX1BP1 | 50.1671919 | 48.81769 |
| TAX1BP3 | 29.292351 | 29.55804 |
| TAZ | 23.0230133 | 24.19856 |
| TBC1D1 | 12.8525098 | 11.44285 |
| TBC1D10A | 15.7364176 | 16.24829 |
| TBC1D10B | 25.0794854 | 24.36456 |
| TBC1D10C | 83.7930345 | 84.12322 |
| TBC1D12 | 0.01462886 | 0.016619 |
| TBC1D13 | 14.6727432 | 14.29781 |
| TBC1D14 | 20.2097448 | 20.87392 |
| TBC1D15 | 7.82718707 | 7.455726 |
| TBC1D16 | 0.19354401 | 0.513028 |
| TBC1D17 | 19.518784 | 16.45801 |
| TBC1D19 | 0.10517446 | 0.184651 |
| TBC1D2 | 12.8104293 | 19.29099 |
| TBC1D20 | 14.3298766 | 13.65782 |
| TBC1D21 | 0.0174195 | 0 |
| TBC1D22A | 4.1639169 | 3.962301 |
| TBC1D22B | 4.77958852 | 4.26372 |
| TBC1D23 | 11.9007134 | 11.63472 |
| TBC1D24 | 0.2953812 | 0.330057 |

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| TBC1D25 | 7.13162459 | 6.516399 |
| TBC1D26 | 0 | 0 |
| TBC1D27 | 0.1239214 | 0.023463 |
| TBC1D28 | 0.02125918 | 0 |
| TBC1D29 | 0.06276218 | 0 |
| TBC1D2B | 27.4885323 | 34.84541 |
| TBC1D3 | 5.94729535 | 4.165646 |
| TBC1D30 | 0.03541108 | 0.025142 |
| TBC1D3B | 0.58679968 | 0.949077 |
| TBC1D3C | 1.55447945 | 1.199915 |
| TBC1D3D | 0.99425643 | 1.181303 |
| TBC1D3E | 0.74797273 | 0.94297 |
| TBC1D3F | 1.27395365 | 1.701944 |
| TBC1D3G | 0.85331688 | 0.856663 |
| TBC1D3P1 | 0 | 0 |
| TBC1D4 | 0.02643449 | 0.026276 |
| TBC1D5 | 7.70217705 | 7.960764 |
| TBC1D7 | 4.11329546 | 4.579686 |
| TBC1D8 | 5.35393043 | 2.81645 |
| TBC1D8B | 0.00333629 | 0 |
| TBC1D9 | 0.09581358 | 0.026123 |
| TBC1D9B | 24.7500508 | 41.05094 |
| TBCA | 8.51541387 | 7.140909 |
| TBCAP1 | 0 | 0 |
| TBCAP2 | 0 | 0 |
| TBCAP3 | 0 | 0 |
| TBCB | 13.5274841 | 11.28673 |
| TBCC | 30.8184742 | 28.35543 |
| TBCCD1 | 1.93566539 | 1.50135 |
| TBCD | 4.45934366 | 5.179059 |
| TBCE | 2.99594859 | 2.500739 |
| TBCEL | 1.15506644 | 0.910247 |
| TBCKL | 0.5780378 | 0.454611 |
| TBK1 | 24.719923 | 26.76061 |
| TBKBP1 | 4.0738486 | 4.206183 |
| TBL1X | 33.7041156 | 30.50134 |
| TBL1XR1 | 12.066293 | 12.63176 |
| TBL1Y | 0.0786157 | 0.099232 |
| TBL1YP1 | 0 | 0 |
| TBL2 | 5.95982745 | 6.291343 |
| TBL3 | 5.69807543 | 5.764101 |
| TBP | 11.1277077 | 10.81688 |
| TBPL1 | 9.97866352 | 11.17294 |
| TBPL2 | 0 | 0.018416 |
| TBR1 | 0 | 0.014994 |
| TBRG1 | 22.2554065 | 22.73296 |
| TBRG4 | 6.34409185 | 6.547943 |

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| TBX1 | 2.32783123 | 3.392723 |
| TBX10 | 0.01358226 | 0 |
| TBX15 | 0 | 0.006834 |
| TBX18 | 0 | 0 |
| TBX19 | 1.77322068 | 1.743562 |
| TBX2 | 0.00622051 | 0 |
| TBX20 | 0 | 0 |
| TBX21 | 0.0326988 | 0.046433 |
| TBX22 | 0.00883417 | 0 |
| TBX3 | 0 | 0.004994 |
| TBX4 | 0.00851228 | 0.00967 |
| TBX5 | 0.0096646 | 0 |
| TBX6 | 0.32651651 | 0.397423 |
| TBXA2R | 0.01731905 | 0.009837 |
| TBXAS1 | 104.755566 | 92.83627 |
| TC2N | 0.05152296 | 0.027014 |
| TCAM1 | 0 | 0 |
| TCAP | 1.48465473 | 2.157845 |
| TCEA1 | 8.11636831 | 8.016176 |
| TCEA1P | 0 | 0 |
| TCEA1P2 | 0 | 0 |
| TCEA2 | 2.03757968 | 2.173211 |
| TCEA3 | 0 | 0 |
| TCEAL1 | 0.130897 | 0.074351 |
| TCEAL2 | 0 | 0 |
| TCEAL3 | 0.85970242 | 0.849248 |
| TCEAL4 | 0.07804503 | 0.212785 |
| TCEAL5 | 0.05400342 | 0.02045 |
| TCEAL6 | 0.02744821 | 0.046772 |
| TCEAL7 | 0 | 0 |
| TCEAL8 | 1.33576773 | 1.280967 |
| TCEANC | 2.10791042 | 1.72266 |
| TCEB1 | 13.9954875 | 13.09123 |
| TCEB1P | 0 | 0 |
| TCEB1P10 | 0 | 0 |
| TCEB1P11 | 0 | 0 |
| TCEB1P12 | 0 | 0 |
| TCEB1P13 | 0 | 0 |
| TCEB1P14 | 0 | 0 |
| TCEB1P15 | 0 | 0 |
| TCEB1P16 | 0 | 0 |
| TCEB1P17 | 0 | 0 |
| TCEB1P2 | 0 | 0 |
| TCEB1P3 | 0 | 0 |
| TCEB1P4 | 0 | 0 |
| TCEB1P5 | 0 | 0 |
| TCEB1P6 | 0 | 0 |

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| TCEB1P7 | 0 | 0 |
| TCEB1P8 | 0 | 0 |
| TCEB1P9 | 0 | 0 |
| TCEB2 | 125.812182 | 126.8806 |
| TCEB3 | 7.01411506 | 6.924411 |
| TCEB3B | 0 | 0 |
| TCEB3C | 0 | 0.012725 |
| TCEB3CL | 0 | 0 |
| TCERG1 | 6.17597201 | 5.497953 |
| TCERG1L | 0.0241024 | 0.018254 |
| TCF12 | 4.06239125 | 4.139374 |
| TCF15 | 0.03427112 | 0 |
| TCF19 | 1.15747436 | 1.011469 |
| TCF20 | 12.2229074 | 11.71199 |
| TCF21 | 0.00575248 | 0.006535 |
| TCF23 | 0 | 0 |
| TCF25 | 108.449383 | 110.0682 |
| TCF3 | 4.66579675 | 5.54065 |
| TCF4 | 0.19935203 | 0.177734 |
| TCF7 | 45.8176353 | 79.61112 |
| TCF7L1 | 0.5254429 | 0.813184 |
| TCF7L2 | 0.06371312 | 0.117616 |
| TCFL5 | 4.17767162 | 6.156056 |
| TCHH | 0.0060943 | 0.003462 |
| TCHHL1 | 0 | 0 |
| TCHP | 6.27583897 | 6.126422 |
| TCIRG1 | 202.02419 | 225.2714 |
| TCL1A | 0.13555013 | 0.205316 |
| TCL1B | 0 | 0 |
| TCL6 | 0.00561499 | 0.003189 |
| TCN1 | 0.01341757 | 0 |
| TCN2 | 0.3396318 | 0.301427 |
| TCOF1 | 3.19500859 | 2.832746 |
| TCP1 | 29.8880265 | 27.16651 |
| TCP10 | 0 | 0 |
| TCP10L | 0 | 0.008856 |
| TCP10L2 | 0 | 0 |
| TCP11 | 0.00984793 | 0 |
| TCP11L1 | 2.68319278 | 1.444696 |
| TCP11L2 | 12.1281765 | 10.93613 |
| TCP1P1 | 0 | 0 |
| TCP1P2 | 0 | 0 |
| TCTA | 4.22073481 | 2.836843 |
| TCTE1 | 0.02556271 | 0.043559 |
| TCTE1P | 0 | 0 |
| TCTE3 | 0.50663448 | 0.447646 |
| TCTEX1D1 | 1.91139372 | 1.849247 |

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| TCTEX1D2 | 0 | 0.11007 |
| TCTEX1D4 | 0.24833068 | 0.921551 |
| TCTN1 | 0.05143183 | 0.163597 |
| TCTN2 | 0.60691677 | 0.500684 |
| TCTN3 | 0.94418244 | 0.619147 |
| TD1 | 0 | 0 |
| TDG | 9.26177495 | 8.40102 |
| TDFG1 | 0.01020647 | 0.011595 |
| TDFG2 | 0 | 0 |
| TDFG3 | 0 | 0 |
| TDFG4 | 0 | 0 |
| TDFG5 | 0 | 0 |
| TDH | 0 | 0 |
| TDO2 | 0 | 0 |
| TDP1 | 2.19399637 | 1.810347 |
| TDPX2 | 0 | 0 |
| TDRD1 | 0 | 0 |
| TDRD10 | 0.1330191 | 0.056667 |
| TDRD12 | 0 | 0.014771 |
| TDRD3 | 0.87072016 | 0.833991 |
| TDRD5 | 0 | 0 |
| TDRD6 | 0 | 0 |
| TDRD7 | 8.95978503 | 8.54762 |
| TDRD9 | 0.01765722 | 0.015044 |
| TDRG1 | 0 | 0 |
| TDRKH | 0.14171485 | 0.109766 |
| TEAD1 | 0.00222939 | 0.01013 |
| TEAD2 | 0.08744361 | 0.121412 |
| TEAD3 | 0.0210886 | 0.015971 |
| TEAD4 | 0.0108996 | 0 |
| TEC | 2.83435401 | 2.005821 |
| TECPR1 | 3.46492064 | 3.296572 |
| TECPR2 | 1.99089633 | 1.434716 |
| TECTA | 0.02275469 | 0.003693 |
| TECTB | 0 | 0 |
| TEDDM1 | 0.00841013 | 0.038216 |
| TEF | 2.69708682 | 2.22357 |
| TEK | 0 | 0 |
| TEKT1 | 0 | 0 |
| TEKT2 | 0.05573315 | 0.094971 |
| TEKT3 | 0.04958804 | 0 |
| TEKT4 | 0.0433512 | 0.032832 |
| TEKT4P1 | 0 | 0 |
| TEKT5 | 0.01306733 | 0 |
| TELO2 | 2.28156835 | 2.239458 |
| TENC1 | 0.3315533 | 0.385836 |
| TEP1 | 3.32197783 | 3.048513 |

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|---------|------------|----------|
| TEPP | 0 | 0.014708 |
| TERC | 0 | 0 |
| TERF1 | 5.93823537 | 5.527466 |
| TERF1P | 0 | 0 |
| TERF2 | 7.82827195 | 7.681478 |
| TERF2IP | 47.8534943 | 47.14939 |
| TERT | 0 | 0.005945 |
| TES | 72.8210908 | 87.97482 |
| TESC | 36.3352383 | 49.97356 |
| TESK1 | 3.76049242 | 4.357419 |
| TESK2 | 3.75940573 | 3.53307 |
| TESSP1 | 13.4017261 | 9.509119 |
| TESSP2 | 0 | 0.054161 |
| TESSP5 | 0 | 0 |
| TET1 | 0.0438759 | 0.044859 |
| TET2 | 14.2270565 | 12.30228 |
| TET3 | 14.9970357 | 14.67946 |
| TEX10 | 2.03717658 | 2.290569 |
| TEX101 | 0.01209047 | 0.013735 |
| TEX11 | 0 | 0.007607 |
| TEX12 | 0.07351514 | 0.250543 |
| TEX13A | 0 | 0 |
| TEX13B | 0 | 0 |
| TEX14 | 0.02987159 | 0.019391 |
| TEX15 | 0.00207925 | 0 |
| TEX19 | 0 | 0.012551 |
| TEX2 | 2.20993164 | 2.341585 |
| TEX261 | 17.5034163 | 16.15987 |
| TEX264 | 6.4351154 | 5.322775 |
| TEX28 | 0.0137871 | 0.031325 |
| TEX28P1 | 0 | 0 |
| TEX28P2 | 0 | 0 |
| TEX9 | 0.0148694 | 0 |
| TF | 0.02721139 | 0.082434 |
| TFAM | 2.35666158 | 1.949301 |
| TFAMP1 | 0 | 0 |
| TFAMP2 | 0 | 0 |
| TFAP2A | 0.00988962 | 0 |
| TFAP2B | 0.0036439 | 0 |
| TFAP2C | 0.00733612 | 0 |
| TFAP2D | 0.01030653 | 0.011708 |
| TFAP2E | 0.95089437 | 0.676508 |
| TFAP4 | 0.53054573 | 0.491096 |
| TFB1M | 1.96345503 | 1.524186 |
| TFB2M | 1.3302701 | 1.069882 |
| TFCP2 | 7.03799021 | 5.790024 |
| TFCP2L1 | 0.22639529 | 0.254617 |

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| TFDP1 | 148.501809 | 152.3385 |
| TFDP2 | 18.5285729 | 11.81193 |
| TFDP3 | 0.05006031 | 0.028435 |
| TFE3 | 33.022101 | 35.72559 |
| TFEB | 27.8849122 | 36.70027 |
| TFEC | 0.0348784 | 0.003602 |
| TFF1 | 0 | 0 |
| TFF2 | 0.0296968 | 0 |
| TFF3 | 5.5710832 | 7.508792 |
| TFG | 9.86821089 | 9.483121 |
| TFIP11 | 23.8770755 | 21.57575 |
| TFPI | 0.01015226 | 0.0173 |
| TFPI2 | 0 | 0 |
| TFPT | 5.12983179 | 4.261659 |
| TFR2 | 1.36868498 | 1.091702 |
| TFRC | 25.0596532 | 32.45127 |
| TG | 0.09949287 | 0.093246 |
| TGDS | 3.59265645 | 3.428304 |
| TGFA | 18.2443069 | 23.59383 |
| TGFB1 | 246.630896 | 368.6818 |
| TGFB111 | 0.07994422 | 0.116766 |
| TGFB2 | 0.0120397 | 0.004559 |
| TGFB3 | 0.23119277 | 0.217615 |
| TGFBI | 0.10493926 | 0.119213 |
| TGFBR1 | 14.1673388 | 7.790788 |
| TGFBR2 | 135.502537 | 102.6593 |
| TGFBR3 | 0.04586392 | 0.029773 |
| TGFBRAP1 | 7.12376056 | 7.844069 |
| TGIF1 | 22.5724385 | 32.79947 |
| TGIF1P1 | 0 | 0 |
| TGIF2 | 6.14833518 | 6.157113 |
| TGIF2LX | 0 | 0.0282 |
| TGIF2LY | 0 | 0 |
| TGIF2P1 | 0 | 0 |
| TGM1 | 0.6586978 | 0.421451 |
| TGM2 | 0.31388771 | 0.257206 |
| TGM3 | 0.03141626 | 0.008922 |
| TGM4 | 0.08412937 | 0.039822 |
| TGM5 | 0.05773546 | 0.054657 |
| TGM6 | 0 | 0 |
| TGM7 | 0 | 0.030993 |
| TGOLN2 | 77.8696235 | 83.88907 |
| TGS1 | 6.98186776 | 6.16536 |
| TH | 0.01100803 | 0.025011 |
| TH1L | 8.00210868 | 5.852222 |
| THA1P | 0 | 0 |
| THADA | 2.17548751 | 1.982337 |

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| THAP1 | 3.77427492 | 3.40586 |
| THAP10 | 0 | 0 |
| THAP11 | 0.03344432 | 0.037993 |
| THAP2 | 0.23588961 | 0.202245 |
| THAP3 | 1.65989455 | 1.850747 |
| THAP4 | 8.52509944 | 8.278991 |
| THAP5 | 6.18527218 | 5.630388 |
| THAP6 | 3.02628436 | 2.663543 |
| THAP7 | 5.58644059 | 5.000103 |
| THAP8 | 0.31105969 | 0.327193 |
| THAP9 | 0.51027301 | 0.485037 |
| THBD | 0.07300462 | 0.118478 |
| THBS1 | 85.3722851 | 13.242 |
| THBS2 | 0.01085832 | 0.012335 |
| THBS3 | 3.14678452 | 2.823407 |
| THBS4 | 7.55783879 | 5.958819 |
| THEG | 0 | 0.018067 |
| THEM4 | 0.75294703 | 0.725432 |
| THEM5 | 0.01913133 | 0.021733 |
| THG1L | 0.56389777 | 0.274541 |
| THNSL1 | 0.01115402 | 0.006336 |
| THNSL2 | 0.30861044 | 0.305349 |
| THOC1 | 6.79356213 | 6.196609 |
| THOC2 | 9.58695127 | 8.651434 |
| THOC3 | 4.63523434 | 4.246532 |
| THOC4 | 18.9382577 | 19.88962 |
| THOC5 | 14.6352794 | 12.40222 |
| THOC6 | 1.76198196 | 1.429742 |
| THOC7 | 9.78261927 | 9.549305 |
| THOP1 | 1.0059178 | 0.946038 |
| THPO | 0.01164838 | 0 |
| THRA | 3.52151595 | 3.860517 |
| THRAP3 | 41.481384 | 40.03666 |
| THRB | 0.00820768 | 0.009324 |
| THRSP | 0.03581828 | 0.020345 |
| THSD1 | 0.16955912 | 0.164085 |
| THSD1P | 0 | 0 |
| THSD4 | 0.00459821 | 0.002612 |
| THSD7A | 0.00324615 | 0.003688 |
| THSD7B | 0 | 0 |
| THTPA | 2.47525487 | 2.019377 |
| THUMPD1 | 55.3438512 | 56.13758 |
| THUMPD2 | 0.29262059 | 0.233926 |
| THUMPD3 | 7.61772041 | 8.947914 |
| THY1 | 0.00877152 | 0 |
| THYN1 | 44.1038547 | 34.37214 |
| TIA1 | 20.6457634 | 19.1471 |

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| TIAF1 | 0 | 0.011434 |
| TIAL1 | 22.7636667 | 21.62563 |
| TIAM1 | 0.02628897 | 0.029865 |
| TIAM2 | 4.09444317 | 6.785363 |
| TICAM1 | 2.08464251 | 1.502208 |
| TICAM2 | 4.34906735 | 4.017131 |
| TIE1 | 0.03249665 | 0.018458 |
| TIFA | 0.62945996 | 0.901618 |
| TIFAB | 0.03303273 | 0.018763 |
| TIGD1 | 1.36561586 | 0.790316 |
| TIGD2 | 0.40336366 | 0.515506 |
| TIGD3 | 5.58752444 | 4.575552 |
| TIGD4 | 0.02592519 | 0.029451 |
| TIGD5 | 0.36218547 | 0.400898 |
| TIGD6 | 0.22271321 | 0.184626 |
| TIGD7 | 2.74990705 | 2.287169 |
| TIGIT | 0.01965903 | 0.022333 |
| TIMD4 | 0 | 0 |
| TIMELESS | 0.5033312 | 0.409087 |
| TIMM10 | 3.08829045 | 3.508347 |
| TIMM13 | 2.99901193 | 3.431348 |
| TIMM17A | 9.94869488 | 8.523198 |
| TIMM17B | 27.9894174 | 28.09272 |
| TIMM22 | 2.97340479 | 2.275445 |
| TIMM23 | 0 | 0.187481 |
| TIMM44 | 1.55104901 | 1.318249 |
| TIMM50 | 1.95375354 | 1.903751 |
| TIMM8A | 1.29830517 | 1.024233 |
| TIMM8AP | 0 | 0 |
| TIMM8B | 18.3844681 | 15.75033 |
| TIMM9 | 1.09222499 | 0.620392 |
| TIMP1 | 1.83627345 | 2.372866 |
| TIMP2 | 150.65757 | 167.7316 |
| TIMP3 | 0.01149763 | 0 |
| TIMP4 | 0 | 0 |
| TINAG | 0 | 0 |
| TINAGL1 | 0.01879779 | 0.032032 |
| TINF2 | 34.3989467 | 29.19048 |
| TINP1 | 11.2173188 | 8.913646 |
| TIPARP | 88.7711836 | 86.05738 |
| TIPIN | 0.06570416 | 0.335884 |
| TIPRL | 7.6461685 | 7.187786 |
| TIRAP | 3.25744564 | 3.066137 |
| TJAP1 | 9.32999061 | 9.316949 |
| TJP1 | 0.0058689 | 0 |
| TJP2 | 0.21011628 | 0.16086 |
| TJP3 | 0.02941634 | 0.008354 |

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|-----------|------------|----------|
| TK1 | 0.23727646 | 0.314475 |
| TK2 | 9.08523145 | 8.338665 |
| TKT | 182.322154 | 195.23 |
| TKTL1 | 7.36513582 | 4.615572 |
| TKTL2 | 0.06755729 | 0.051164 |
| TLCD1 | 0.06263753 | 0.023719 |
| TLCD2 | 0.25499299 | 0.210674 |
| TLE1 | 3.90406115 | 3.70442 |
| TLE2 | 0.0648041 | 0.073618 |
| TLE3 | 36.4699372 | 38.29413 |
| TLE4 | 44.0925152 | 35.69433 |
| TLE6 | 0.50035493 | 0.343415 |
| TLK1 | 9.56218566 | 10.99726 |
| TLK2 | 11.6219063 | 10.61219 |
| TLK2P1 | 0 | 0 |
| TLK2P2 | 0 | 0 |
| TLL1 | 0.0031598 | 0.00359 |
| TLL2 | 0.00311348 | 0.003537 |
| TLN1 | 113.794556 | 104.8379 |
| TLN2 | 0.00180475 | 0.008201 |
| TLR1 | 8.3039364 | 11.22625 |
| TLR10 | 0.37440767 | 0.285771 |
| TLR2 | 0.12356939 | 0.105283 |
| TLR3 | 0 | 0.007854 |
| TLR4 | 16.3613004 | 12.13058 |
| TLR5 | 0 | 0.013923 |
| TLR6 | 2.40573166 | 3.053962 |
| TLR7 | 1.97954839 | 2.688989 |
| TLR7-like | 0 | 0 |
| TLR8 | 0.04007688 | 0.028455 |
| TLR9 | 1.86444895 | 2.581173 |
| TLX1 | 0 | 0.011336 |
| TLX2 | 0.02400152 | 0 |
| TLX3 | 0 | 0.015998 |
| TM2D1 | 14.1626629 | 12.43936 |
| TM2D2 | 3.59757792 | 4.539548 |
| TM2D3 | 20.7414068 | 19.47137 |
| TM4SF1 | 0.01243367 | 0 |
| TM4SF18 | 0.01823533 | 0 |
| TM4SF19 | 0.06159765 | 0.139952 |
| TM4SF20 | 0.00915737 | 0.052015 |
| TM4SF4 | 0 | 0 |
| TM4SF5 | 0.11878718 | 0 |
| TM6SF1 | 125.171758 | 178.8943 |
| TM6SF2 | 0 | 0 |
| TM7SF2 | 0.83518023 | 0.587339 |
| TM7SF3 | 11.4850749 | 10.99726 |

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| TM7SF4 | 0 | 0 |
| TM9SF1 | 8.57204029 | 7.915864 |
| TM9SF2 | 98.4115742 | 112.387 |
| TM9SF3 | 31.5003289 | 40.74473 |
| TM9SF4 | 10.7399378 | 9.390727 |
| TMBIM1 | 110.9715 | 179.9162 |
| TMBIM4 | 38.531003 | 37.95838 |
| TMBIM6 | 152.038955 | 156.3706 |
| TMC1 | 0.00656836 | 0.007462 |
| TMC2 | 0 | 0 |
| TMC3 | 0.17823472 | 0.137395 |
| TMC4 | 0.1525417 | 0.134781 |
| TMC5 | 0.02683759 | 0.026133 |
| TMC6 | 87.1932843 | 107.4911 |
| TMC7 | 0.02360408 | 0.013407 |
| TMC8 | 56.8145456 | 62.88286 |
| TMCC1 | 2.77675108 | 2.862756 |
| TMCC2 | 3.49313252 | 4.006047 |
| TMCC3 | 17.3495738 | 11.96089 |
| TMCO1 | 7.44824477 | 7.091395 |
| TMCO2 | 0.02837427 | 0 |
| TMCO3 | 17.5710721 | 15.86665 |
| TMCO4 | 0.26157944 | 0.36944 |
| TMCO5A | 0 | 0 |
| TMCO6 | 3.01633917 | 2.971414 |
| TMCO7 | 0.89023817 | 0.748579 |
| TMED1 | 11.1866536 | 12.58501 |
| TMED10 | 19.2546166 | 20.55364 |
| TMED10P | 0 | 0 |
| TMED2 | 46.2240813 | 46.89391 |
| TMED3 | 22.9339705 | 18.17196 |
| TMED4 | 33.4512604 | 31.22359 |
| TMED5 | 29.8987964 | 28.99774 |
| TMED6 | 0.34810151 | 0.579992 |
| TMED7 | 0.53695977 | 0.546454 |
| TMED8 | 5.35307506 | 4.029696 |
| TMED9 | 39.5612147 | 37.80389 |
| TMEFF1 | 0.0644102 | 0.094077 |
| TMEFF2 | 0 | 0.026349 |
| TMEM100 | 0 | 0 |
| TMEM101 | 2.13122263 | 1.645108 |
| TMEM102 | 6.15947354 | 5.738237 |
| TMEM104 | 8.64212382 | 9.983563 |
| TMEM105 | 0.00633866 | 0.007201 |
| TMEM106A | 5.98037142 | 5.135939 |
| TMEM106B | 2.65318116 | 1.925036 |
| TMEM106C | 3.00551016 | 2.40656 |

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| TMEM107 | 2.68735931 | 1.93663 |
| TMEM108 | 0.00554612 | 0.0063 |
| TMEM109 | 8.48761267 | 7.62163 |
| TMEM11 | 7.54562379 | 6.946529 |
| TMEM110 | 8.94042907 | 7.946567 |
| TMEM111 | 32.5697951 | 33.19588 |
| TMEM114 | 0 | 0 |
| TMEM115 | 11.0495892 | 10.61434 |
| TMEM116 | 0.69839386 | 0.612439 |
| TMEM117 | 0.00779582 | 0.017712 |
| TMEM119 | 0.32693962 | 0.415624 |
| TMEM120A | 85.3019546 | 82.79414 |
| TMEM120B | 2.77724745 | 4.25543 |
| TMEM121 | 0.01384156 | 0.031448 |
| TMEM123 | 127.118331 | 111.8276 |
| TMEM125 | 0 | 0 |
| TMEM126A | 3.12773518 | 3.25706 |
| TMEM126B | 13.5350568 | 12.04918 |
| TMEM127 | 55.1265391 | 60.70609 |
| TMEM128 | 5.7419062 | 4.90941 |
| TMEM129 | 12.4729052 | 17.75597 |
| TMEM130 | 0.01371963 | 0 |
| TMEM131 | 29.617109 | 20.8761 |
| TMEM132A | 0.00597311 | 0.006786 |
| TMEM132B | 0 | 0.003152 |
| TMEM132C | 0 | 0.004924 |
| TMEM132D | 0.01091847 | 0.004135 |
| TMEM132E | 0.01443717 | 0.005467 |
| TMEM133 | 0.02265661 | 0 |
| TMEM134 | 12.6790499 | 11.89074 |
| TMEM135 | 0.315643 | 0.391777 |
| TMEM136 | 0 | 0 |
| TMEM138 | 9.77080785 | 10.07203 |
| TMEM139 | 0.01779546 | 0.010108 |
| TMEM140 | 30.7745767 | 27.05557 |
| TMEM141 | 2.64654516 | 2.67246 |
| TMEM143 | 1.30882452 | 1.157615 |
| TMEM144 | 0.0126735 | 0.021596 |
| TMEM145 | 0 | 0.013426 |
| TMEM146 | 0.02509988 | 0 |
| TMEM147 | 13.1933334 | 13.21961 |
| TMEM148 | 0 | 0 |
| TMEM149 | 39.3258072 | 34.80915 |
| TMEM14A | 0.53857991 | 0.258853 |
| TMEM14B | 19.943781 | 17.37322 |
| TMEM14C | 17.7314337 | 20.36187 |
| TMEM14D | 0.04550937 | 0.051699 |

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| TMEM14E | 0 | 0 |
| TMEM150 | 4.66025377 | 4.986324 |
| TMEM151A | 0 | 0.009441 |
| TMEM151B | 0.00910385 | 0 |
| TMEM154 | 79.7395048 | 61.52835 |
| TMEM155 | 0 | 0 |
| TMEM156 | 18.9877323 | 16.81369 |
| TMEM158 | 0.02262004 | 0.012848 |
| TMEM159 | 1.85225779 | 1.553096 |
| TMEM160 | 12.6151986 | 12.61717 |
| TMEM161A | 0.87457813 | 0.617603 |
| TMEM161B | 5.03343505 | 4.290848 |
| TMEM163 | 0.01110688 | 0.012618 |
| TMEM164 | 20.6073962 | 16.32514 |
| TMEM165 | 14.8193809 | 15.37642 |
| TMEM167A | 18.2111989 | 17.20624 |
| TMEM167AP1 | 0 | 0 |
| TMEM167B | 33.7781499 | 30.91167 |
| TMEM168 | 3.40045216 | 2.877578 |
| TMEM169 | 0.01214986 | 0 |
| TMEM17 | 0.0218445 | 0.012408 |
| TMEM170A | 8.78700152 | 8.021791 |
| TMEM170B | 19.9039129 | 20.7745 |
| TMEM171 | 0.01683373 | 0.019123 |
| TMEM173 | 0.12455765 | 0.282999 |
| TMEM174 | 0 | 0 |
| TMEM175 | 14.7995561 | 15.22288 |
| TMEM176A | 3.54473306 | 2.922359 |
| TMEM176B | 2.4634584 | 1.861346 |
| TMEM177 | 0.084682 | 0.013743 |
| TMEM178 | 0 | 0.014644 |
| TMEM179 | 0 | 0 |
| TMEM179B | 27.1132024 | 26.67896 |
| TMEM18 | 2.38564254 | 1.945444 |
| TMEM180 | 2.47793244 | 3.430219 |
| TMEM181 | 29.3739106 | 29.27995 |
| TMEM182 | 0.05273912 | 0.046599 |
| TMEM183A | 39.9765414 | 37.0004 |
| TMEM183B | 0.40670335 | 0.392018 |
| TMEM184A | 0.08375291 | 0.07231 |
| TMEM184B | 43.7680921 | 41.76398 |
| TMEM184C | 8.78470131 | 8.213266 |
| TMEM185A | 2.66086663 | 3.158642 |
| TMEM185B | 0 | 0 |
| TMEM186 | 3.55746277 | 3.08461 |
| TMEM187 | 1.12252817 | 0.945661 |
| TMEM188 | 8.50237513 | 7.904752 |

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| TMEM189 | 2.45151321 | 2.162438 |
| TMEM189-UBE2' | 20.4262976 | 21.34789 |
| TMEM19 | 0.83938862 | 0.594693 |
| TMEM190 | 0 | 0 |
| TMEM191A | 0 | 0 |
| TMEM191B | 0.50867736 | 0.525332 |
| TMEM191C | 0.63060612 | 0.611543 |
| TMEM192 | 0.83727124 | 0.733291 |
| TMEM194A | 3.84048239 | 3.261506 |
| TMEM194B | 0.47981921 | 0.426872 |
| TMEM195 | 0 | 0 |
| TMEM196 | 0 | 0 |
| TMEM198 | 0.02843823 | 0.043075 |
| TMEM199 | 11.2019017 | 10.1046 |
| TMEM2 | 14.09532 | 7.704165 |
| TMEM20 | 0.27998776 | 0.437347 |
| TMEM200A | 0.00418581 | 0 |
| TMEM200B | 0.02563023 | 0 |
| TMEM201 | 0.14755769 | 0.070776 |
| TMEM202 | 0.01622325 | 0 |
| TMEM203 | 10.748981 | 10.6156 |
| TMEM204 | 0 | 0.050658 |
| TMEM205 | 6.26700985 | 6.953426 |
| TMEM206 | 4.20077968 | 2.946074 |
| TMEM207 | 0 | 0 |
| TMEM208 | 9.45345485 | 9.776651 |
| TMEM209 | 1.55391727 | 1.455341 |
| TMEM211 | 0 | 0 |
| TMEM213 | 0.00620216 | 0 |
| TMEM214 | 16.9862542 | 16.82957 |
| TMEM215 | 0.00390588 | 0 |
| TMEM216 | 22.5589433 | 26.50779 |
| TMEM217 | 0 | 0.061798 |
| TMEM218 | 1.26911456 | 1.010349 |
| TMEM219 | 39.377772 | 36.67643 |
| TMEM22 | 0.03061941 | 0.023189 |
| TMEM220 | 1.9379752 | 2.093423 |
| TMEM221 | 0 | 0 |
| TMEM222 | 20.934143 | 24.0479 |
| TMEM223 | 1.81755796 | 3.90013 |
| TMEM224 | 0 | 0 |
| TMEM225 | 0 | 0 |
| TMEM25 | 0.0349258 | 0.039676 |
| TMEM26 | 0 | 0 |
| TMEM27 | 0 | 0 |
| TMEM30A | 28.5396658 | 26.84447 |
| TMEM30B | 0.00473224 | 0 |

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| TMEM30C | 0 | 0 |
| TMEM31 | 0.05744626 | 0 |
| TMEM33 | 5.34828621 | 5.156485 |
| TMEM35 | 0 | 0 |
| TMEM37 | 0 | 0 |
| TMEM38A | 1.26998643 | 1.136692 |
| TMEM38B | 3.53460525 | 3.348057 |
| TMEM39A | 8.61775486 | 7.835156 |
| TMEM39B | 5.8519348 | 5.412907 |
| TMEM40 | 0.01229552 | 0.013968 |
| TMEM41A | 1.13047411 | 0.954728 |
| TMEM41B | 14.1419611 | 17.47655 |
| TMEM42 | 0.88595948 | 0.760985 |
| TMEM43 | 27.1215445 | 26.44372 |
| TMEM44 | 0.95039876 | 1.049111 |
| TMEM45A | 0 | 0 |
| TMEM45B | 0.09526657 | 0.032467 |
| TMEM47 | 0.00518632 | 0.005892 |
| TMEM48 | 1.0675297 | 0.710584 |
| TMEM49 | 12.3678417 | 13.30365 |
| TMEM5 | 0.9128848 | 1.234585 |
| TMEM50A | 40.5290919 | 45.76932 |
| TMEM50B | 28.6258258 | 27.98204 |
| TMEM51 | 0 | 0.010673 |
| TMEM52 | 0.06584133 | 0.149594 |
| TMEM53 | 0.15768998 | 0.134354 |
| TMEM54 | 0.02117355 | 0 |
| TMEM55A | 2.76143166 | 1.479169 |
| TMEM55B | 30.3603816 | 26.46314 |
| TMEM56 | 0.07704973 | 0.066523 |
| TMEM57 | 11.1957219 | 10.21482 |
| TMEM59 | 73.8985836 | 70.30334 |
| TMEM59L | 0.01298662 | 0.014753 |
| TMEM60 | 18.7855191 | 12.31191 |
| TMEM61 | 0 | 0 |
| TMEM62 | 3.63710131 | 3.260589 |
| TMEM63A | 9.03149955 | 9.034598 |
| TMEM63B | 5.98094754 | 5.435561 |
| TMEM63C | 0.00778428 | 0 |
| TMEM64 | 1.34380617 | 0.991289 |
| TMEM65 | 4.76938666 | 4.946719 |
| TMEM66 | 304.181344 | 306.6403 |
| TMEM67 | 0.13411219 | 0.078634 |
| TMEM68 | 2.00543726 | 1.628764 |
| TMEM69 | 5.13126704 | 5.130996 |
| TMEM70 | 2.00584126 | 1.96316 |
| TMEM71 | 24.3673658 | 17.37505 |

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| TMEM72 | 0 | 0 |
| TMEM74 | 0 | 0 |
| TMEM77 | 9.39785472 | 9.118387 |
| TMEM79 | 2.56010391 | 2.365722 |
| TMEM8 | 45.2251648 | 69.35567 |
| TMEM80 | 5.89434725 | 5.445157 |
| TMEM81 | 2.2256544 | 1.990426 |
| TMEM82 | 0 | 0 |
| TMEM84 | 0 | 0 |
| TMEM85 | 21.9376309 | 21.16158 |
| TMEM86A | 0.1291338 | 0.106689 |
| TMEM86B | 8.05906958 | 8.674909 |
| TMEM87A | 11.4655376 | 10.36002 |
| TMEM87B | 3.09813012 | 2.896276 |
| TMEM88 | 1.44338656 | 2.37758 |
| TMEM88B | 0.07180782 | 0.03263 |
| TMEM89 | 0.17521109 | 0.099521 |
| TMEM9 | 1.28419825 | 0.993273 |
| TMEM90A | 0.02419486 | 0.018324 |
| TMEM91 | 0.8711338 | 0.72125 |
| TMEM92 | 0 | 0 |
| TMEM93 | 13.4209917 | 12.48815 |
| TMEM95 | 0 | 0 |
| TMEM97 | 0.06549947 | 0.111613 |
| TMEM98 | 0 | 0 |
| TMEM99 | 0.1221811 | 0.115666 |
| TMEM9B | 28.401588 | 30.97025 |
| TMF1 | 18.4120648 | 17.55533 |
| TMIE | 0 | 0 |
| TMIGD1 | 0 | 0 |
| TMIGD2 | 0.04998098 | 0.056779 |
| TMLHE | 2.06939335 | 1.65648 |
| TMOD1 | 0.25255653 | 0.197249 |
| TMOD2 | 9.36595409 | 9.157779 |
| TMOD3 | 21.7886268 | 21.38511 |
| TMOD4 | 1.59041838 | 1.626066 |
| TMPO | 5.76746415 | 6.308867 |
| TMPPE | 0.00529472 | 0 |
| TMPRSS11A | 0 | 0 |
| TMPRSS11B | 0 | 0.00903 |
| TMPRSS11D | 0 | 0 |
| TMPRSS11E | 0 | 0 |
| TMPRSS11E2 | 0 | 0 |
| TMPRSS11F | 0 | 0 |
| TMPRSS12 | 0.01435176 | 0 |
| TMPRSS13 | 0.04340233 | 0.056349 |
| TMPRSS2 | 0.01312443 | 0 |

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| TMPRSS3 | 0.00800355 | 0 |
| TMPRSS4 | 0 | 0 |
| TMPRSS5 | 0.20930194 | 0.205347 |
| TMPRSS6 | 0.02635579 | 0.01497 |
| TMPRSS7 | 0 | 0 |
| TMPRSS9 | 0.13884653 | 0.105155 |
| TMSB10 | 448.075103 | 410.705 |
| TMSB15A | 0 | 0 |
| TMSB15B | 0.06313913 | 0.143454 |
| TMSB4X | 7135.17503 | 6070.159 |
| TMSB4Y | 0.66767079 | 0.715552 |
| TMSL1 | 0 | 0 |
| TMSL2 | 0 | 0 |
| TMSL3 | 0.5637707 | 0.791147 |
| TMSL4 | 0 | 0 |
| TMSL5 | 0 | 0 |
| TMSL6 | 0 | 0 |
| TMSL7 | 0 | 0 |
| TMTC1 | 0.01668488 | 0.008123 |
| TMTC2 | 0 | 0 |
| TMTC3 | 2.84015647 | 2.380884 |
| TMTC4 | 0.49846949 | 0.388117 |
| TMUB1 | 25.8108647 | 29.32155 |
| TMUB2 | 34.7285306 | 29.18353 |
| TMX1 | 5.82500032 | 4.859665 |
| TMX2 | 23.2438311 | 22.99729 |
| TMX3 | 9.19885924 | 9.543976 |
| TMX4 | 27.3648944 | 24.53065 |
| TNC | 0.00276685 | 0.006286 |
| TNF | 0 | 0 |
| TNFAIP1 | 5.15559441 | 4.80963 |
| TNFAIP2 | 136.390189 | 141.3484 |
| TNFAIP3 | 14.4169632 | 19.68689 |
| TNFAIP6 | 0.08865213 | 0.016785 |
| TNFAIP8 | 13.632863 | 9.401354 |
| TNFAIP8L1 | 36.0516649 | 52.31352 |
| TNFAIP8L2 | 26.0228629 | 24.95974 |
| TNFAIP8L3 | 0 | 0.010573 |
| TNFRSF10A | 2.30060672 | 2.34798 |
| TNFRSF10B | 6.31164846 | 4.86442 |
| TNFRSF10C | 20.6160419 | 15.68806 |
| TNFRSF10D | 0.71373118 | 0.783783 |
| TNFRSF11A | 0.03362977 | 0.045845 |
| TNFRSF11B | 0 | 0 |
| TNFRSF12A | 19.3766845 | 26.15107 |
| TNFRSF13B | 0.13934314 | 0.017588 |
| TNFRSF13C | 0.27013273 | 0.306875 |

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| TNFRSF14 | 42.1861503 | 39.08091 |
| TNFRSF17 | 0 | 0 |
| TNFRSF18 | 0.1927322 | 0.298564 |
| TNFRSF19 | 0.09873255 | 0.042728 |
| TNFRSF1A | 49.8922327 | 64.69787 |
| TNFRSF1B | 108.759603 | 116.3254 |
| TNFRSF21 | 0.10992881 | 0.046009 |
| TNFRSF25 | 0.10973555 | 0.174526 |
| TNFRSF4 | 0.43310607 | 0.357829 |
| TNFRSF6B | 0.77318959 | 0.508522 |
| TNFRSF8 | 0.27013273 | 0.389987 |
| TNFRSF9 | 0.01115994 | 0.063389 |
| TNFSF10 | 1.49412528 | 0.719676 |
| TNFSF11 | 0.02313018 | 0 |
| TNFSF12 | 38.7284776 | 39.99808 |
| TNFSF12-TNFSF1 | 9.18056141 | 10.49477 |
| TNFSF13 | 13.5057267 | 10.76719 |
| TNFSF13B | 5.55320203 | 3.630378 |
| TNFSF14 | 24.6714241 | 50.39726 |
| TNFSF15 | 0.03147505 | 0.011919 |
| TNFSF18 | 0.02810873 | 0.031932 |
| TNFSF4 | 0.12038552 | 0.10257 |
| TNFSF8 | 0.04249688 | 0.012069 |
| TNFSF9 | 0 | 0.014345 |
| TNIK | 8.76441668 | 7.429363 |
| TNIP1 | 78.8771596 | 78.64253 |
| TNIP2 | 14.8766187 | 14.00716 |
| TNIP3 | 0.02422273 | 0.009172 |
| TNK1 | 0.00741634 | 0.067401 |
| TNK2 | 50.7050828 | 79.1759 |
| TNKS | 5.06193769 | 4.541132 |
| TNKS1BP1 | 1.36195013 | 1.63338 |
| TNKS2 | 24.1553372 | 23.03996 |
| TNMD | 0 | 0 |
| TNN | 0.01259505 | 0.004769 |
| TNNC1 | 0.15104404 | 0.068635 |
| TNNC2 | 0.12313517 | 0.209825 |
| TNNI1 | 0 | 0 |
| TNNI2 | 11.0533168 | 13.23917 |
| TNNI3 | 0.74823242 | 1.020005 |
| TNNI3K | 0.38170988 | 0.355433 |
| TNNT1 | 21.9080739 | 21.69716 |
| TNNT2 | 0 | 0 |
| TNNT3 | 9.20372749 | 10.41817 |
| TNP1 | 0 | 0 |
| TNP2 | 0 | 0 |
| TNPO1 | 16.6768444 | 18.93419 |

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| TNPO2 | 9.004796 | 7.333762 |
| TNPO3 | 13.9080072 | 12.50567 |
| TNR | 0.19445393 | 0.151871 |
| TNRC18 | 51.204994 | 61.80487 |
| TNRC18B | 0 | 0 |
| TNRC18C | 0 | 0 |
| TNRC4 | 0.01275422 | 0.007244 |
| TNRC6A | 9.85242566 | 9.913611 |
| TNRC6B | 8.45939277 | 7.993079 |
| TNRC6C | 15.3884784 | 18.63918 |
| TNS1 | 0.01023031 | 0.023244 |
| TNS3 | 0.03032367 | 0.015658 |
| TNS4 | 0.01032678 | 0 |
| TNXA | 0 | 0 |
| TNXB | 0.04981948 | 0.049736 |
| TOB1 | 20.5657609 | 28.19226 |
| TOB2 | 9.83792047 | 8.48667 |
| TOE1 | 5.32665157 | 6.360708 |
| TOLLIP | 19.5901946 | 18.29159 |
| TOM1 | 16.3502273 | 17.54063 |
| TOM1L1 | 0 | 0 |
| TOM1L2 | 4.0580916 | 3.849253 |
| TOMM20 | 9.65911278 | 9.111178 |
| TOMM20L | 0.06893551 | 0.078312 |
| TOMM22 | 3.86023856 | 4.107961 |
| TOMM22P1 | 0 | 0 |
| TOMM22P2 | 0 | 0 |
| TOMM34 | 2.89367659 | 2.296421 |
| TOMM40 | 1.01509644 | 1.033873 |
| TOMM40L | 0.96532875 | 0.936147 |
| TOMM5 | 2.73537933 | 2.791424 |
| TOMM6 | 18.2432907 | 14.18004 |
| TOMM7 | 40.0317687 | 36.20445 |
| TOMM70A | 2.65227799 | 1.983121 |
| TOP | 0 | 0 |
| TOP1 | 34.2970784 | 33.49289 |
| TOP1MT | 6.93505681 | 8.265999 |
| TOP1P1 | 0 | 0 |
| TOP1P2 | 0 | 0 |
| TOP2A | 0.06641909 | 0.058686 |
| TOP2B | 50.2476641 | 47.25008 |
| TOP3A | 17.7867353 | 15.63906 |
| TOP3B | 11.2671954 | 10.20133 |
| TOP3B2 | 0 | 0 |
| TOPBP1 | 26.031924 | 23.21493 |
| TOPORS | 8.80955285 | 7.48569 |
| TOR1A | 38.2868681 | 47.55473 |

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| TOR1AIP1 | 35.1305832 | 33.7792 |
| TOR1AIP2 | 5.10831551 | 4.035598 |
| TOR1B | 34.8372042 | 38.54051 |
| TOR2A | 23.2292616 | 23.47576 |
| TOR3A | 4.85047654 | 5.184103 |
| TOX | 0.8041642 | 1.185293 |
| TOX2 | 17.2309506 | 19.07597 |
| TOX3 | 0 | 0 |
| TOX4 | 21.6388022 | 20.8282 |
| TP53 | 2.59284155 | 2.255281 |
| TP53AIP1 | 0.00790723 | 0.008983 |
| TP53BP1 | 7.52889447 | 7.068579 |
| TP53BP2 | 9.89582292 | 9.471251 |
| TP53I11 | 0.21325034 | 0.242256 |
| TP53I13 | 31.1834743 | 46.04418 |
| TP53I3 | 5.723911 | 4.86258 |
| TP53INP1 | 98.1591309 | 71.83704 |
| TP53INP2 | 16.1462714 | 14.53725 |
| TP53RK | 9.05092812 | 8.724119 |
| TP53TG1 | 0 | 0 |
| TP53TG3 | 0.02067388 | 0 |
| TP53TG5 | 0.1285953 | 0.121739 |
| TP63 | 0.00322277 | 0.007322 |
| TP73 | 0.03371605 | 0.084264 |
| TPBG | 0 | 0.020105 |
| TPCN1 | 5.22292801 | 4.710054 |
| TPCN2 | 5.82317165 | 4.842604 |
| TPD52 | 0.72565716 | 0.473341 |
| TPD52L1 | 0 | 0 |
| TPD52L2 | 23.6927237 | 24.33073 |
| TPD52L3 | 0 | 0 |
| TPH1 | 0.06299725 | 0.035783 |
| TPH2 | 0.00890904 | 0 |
| TPI1 | 126.565599 | 120.5219 |
| TPK1 | 0.30171652 | 0.479857 |
| TPM1 | 1.33055826 | 2.096186 |
| TPM2 | 0.41409483 | 0.34902 |
| TPM3 | 67.6237387 | 59.80572 |
| TPM3L2 | 0 | 0 |
| TPM4 | 11.1673003 | 13.70431 |
| TPM5P | 0 | 0 |
| TPMT | 0.98980789 | 0.823118 |
| TPMTP1 | 0 | 0 |
| TPO | 0.01337489 | 0.007597 |
| TPP1 | 46.3116687 | 42.74711 |
| TPP2 | 24.4216962 | 24.90419 |
| TPPP | 0.03142278 | 0.027764 |

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| TPPP2 | 0 | 0 |
| TPPP3 | 0.81723901 | 0.780697 |
| TPR | 20.3864277 | 17.44144 |
| TPRG1 | 0.01149868 | 0 |
| TPRG1L | 25.6062206 | 26.6199 |
| TPRKB | 7.94041754 | 7.559383 |
| TPRX1 | 0 | 0 |
| TPRX1P1 | 0 | 0 |
| TPRX1P2 | 0 | 0 |
| TPRX2P | 0 | 0 |
| TPRXL | 0 | 0 |
| TPSAB1 | 0.10565493 | 0.160034 |
| TPSB2 | 0.41473637 | 0.655509 |
| TPSD1 | 0.12295515 | 0.363165 |
| TPSG1 | 0 | 0 |
| TPSP1 | 0 | 0 |
| TPST1 | 4.24402097 | 4.844566 |
| TPST2 | 4.71170067 | 5.720915 |
| TPT1 | 860.237847 | 855.4845 |
| TPTE | 0.35554719 | 0.392991 |
| TPTE2 | 0.4776269 | 0.454005 |
| TPTE2P4 | 0 | 0 |
| TPX2 | 0.17224466 | 0.110881 |
| TR2IT1 | 0.03708171 | 0.063188 |
| TRA@ | 0 | 0 |
| TRA2A | 36.1005275 | 33.17448 |
| TRA2B | 13.879659 | 12.17083 |
| TRABD | 302.964575 | 355.9758 |
| TRAC | 0 | 0 |
| TRADD | 13.8656599 | 14.02827 |
| TRAF1 | 0.7750403 | 0.805297 |
| TRAF2 | 3.48113736 | 3.639935 |
| TRAF3 | 6.62621455 | 6.541189 |
| TRAF3IP1 | 0.6696286 | 0.623438 |
| TRAF3IP2 | 2.44294322 | 2.420358 |
| TRAF3IP3 | 90.3435382 | 74.87018 |
| TRAF4 | 2.0286329 | 3.03708 |
| TRAF5 | 0.56121971 | 0.904168 |
| TRAF6 | 8.23369604 | 7.627646 |
| TRAF7 | 21.7305711 | 21.62491 |
| TRAFD1 | 36.415688 | 27.70943 |
| TRAIP | 0.58172852 | 0.37763 |
| TRAJ1 | 0 | 0 |
| TRAJ10 | 0 | 0 |
| TRAJ11 | 0 | 0 |
| TRAJ12 | 0 | 0 |
| TRAJ13 | 0 | 0 |

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|--------|---|---|
| TRAJ14 | 0 | 0 |
| TRAJ15 | 0 | 0 |
| TRAJ16 | 0 | 0 |
| TRAJ17 | 0 | 0 |
| TRAJ18 | 0 | 0 |
| TRAJ19 | 0 | 0 |
| TRAJ2 | 0 | 0 |
| TRAJ20 | 0 | 0 |
| TRAJ21 | 0 | 0 |
| TRAJ22 | 0 | 0 |
| TRAJ23 | 0 | 0 |
| TRAJ24 | 0 | 0 |
| TRAJ25 | 0 | 0 |
| TRAJ26 | 0 | 0 |
| TRAJ27 | 0 | 0 |
| TRAJ28 | 0 | 0 |
| TRAJ29 | 0 | 0 |
| TRAJ3 | 0 | 0 |
| TRAJ30 | 0 | 0 |
| TRAJ31 | 0 | 0 |
| TRAJ32 | 0 | 0 |
| TRAJ33 | 0 | 0 |
| TRAJ34 | 0 | 0 |
| TRAJ35 | 0 | 0 |
| TRAJ36 | 0 | 0 |
| TRAJ37 | 0 | 0 |
| TRAJ38 | 0 | 0 |
| TRAJ39 | 0 | 0 |
| TRAJ4 | 0 | 0 |
| TRAJ40 | 0 | 0 |
| TRAJ41 | 0 | 0 |
| TRAJ42 | 0 | 0 |
| TRAJ43 | 0 | 0 |
| TRAJ44 | 0 | 0 |
| TRAJ45 | 0 | 0 |
| TRAJ46 | 0 | 0 |
| TRAJ47 | 0 | 0 |
| TRAJ48 | 0 | 0 |
| TRAJ49 | 0 | 0 |
| TRAJ5 | 0 | 0 |
| TRAJ50 | 0 | 0 |
| TRAJ51 | 0 | 0 |
| TRAJ52 | 0 | 0 |
| TRAJ53 | 0 | 0 |
| TRAJ54 | 0 | 0 |
| TRAJ55 | 0 | 0 |
| TRAJ56 | 0 | 0 |

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| TRAJ57 | 0 | 0 |
| TRAJ58 | 0 | 0 |
| TRAJ59 | 0 | 0 |
| TRAJ6 | 0 | 0 |
| TRAJ60 | 0 | 0 |
| TRAJ61 | 0 | 0 |
| TRAJ7 | 0 | 0 |
| TRAJ8 | 0 | 0 |
| TRAJ9 | 0 | 0 |
| TRAK1 | 4.58762962 | 4.363768 |
| TRAK2 | 4.81260065 | 3.944867 |
| TRAM1 | 28.6318419 | 29.07492 |
| TRAM1L1 | 0.01037263 | 0.011783 |
| TRAM2 | 2.07661268 | 2.000298 |
| TRAP1 | 4.02924461 | 5.087029 |
| TRAPPC1 | 56.3095177 | 51.15713 |
| TRAPPC10 | 56.3762425 | 69.91792 |
| TRAPPC2 | 3.83070212 | 3.399796 |
| TRAPPC2L | 4.01119192 | 4.670697 |
| TRAPPC2P1 | 0 | 0 |
| TRAPPC2P10 | 0 | 0 |
| TRAPPC2P2 | 0 | 0 |
| TRAPPC2P3 | 0 | 0 |
| TRAPPC2P4 | 0 | 0 |
| TRAPPC2P5 | 0 | 0 |
| TRAPPC2P7 | 0 | 0 |
| TRAPPC2P8 | 0 | 0 |
| TRAPPC2P9 | 0 | 0 |
| TRAPPC3 | 20.97535 | 16.76879 |
| TRAPPC4 | 22.1642031 | 19.84455 |
| TRAPPC5 | 16.7707934 | 21.9462 |
| TRAPPC6A | 3.01495312 | 3.064505 |
| TRAPPC6B | 9.74405819 | 8.417879 |
| TRAPPC9 | 5.59954588 | 5.661497 |
| TRAT1 | 0.07442595 | 0.112732 |
| TRAV10 | 0 | 0 |
| TRAV11 | 0 | 0 |
| TRAV1-1 | 0 | 0 |
| TRAV1-2 | 0 | 0 |
| TRAV12-1 | 0 | 0 |
| TRAV12-2 | 0 | 0 |
| TRAV12-3 | 0 | 0 |
| TRAV13-1 | 0 | 0 |
| TRAV13-2 | 0 | 0 |
| TRAV14DV4 | 0 | 0 |
| TRAV15 | 0 | 0 |
| TRAV16 | 0 | 0 |

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|-------------|---|---|
| TRAV17 | 0 | 0 |
| TRAV18 | 0 | 0 |
| TRAV19 | 0 | 0 |
| TRAV2 | 0 | 0 |
| TRAV20 | 0 | 0 |
| TRAV21 | 0 | 0 |
| TRAV22 | 0 | 0 |
| TRAV23DV6 | 0 | 0 |
| TRAV24 | 0 | 0 |
| TRAV25 | 0 | 0 |
| TRAV26-1 | 0 | 0 |
| TRAV26-2 | 0 | 0 |
| TRAV27 | 0 | 0 |
| TRAV28 | 0 | 0 |
| TRAV29DV5 | 0 | 0 |
| TRAV3 | 0 | 0 |
| TRAV30 | 0 | 0 |
| TRAV31 | 0 | 0 |
| TRAV32 | 0 | 0 |
| TRAV33 | 0 | 0 |
| TRAV34 | 0 | 0 |
| TRAV35 | 0 | 0 |
| TRAV36DV7 | 0 | 0 |
| TRAV37 | 0 | 0 |
| TRAV38-1 | 0 | 0 |
| TRAV38-2DV8 | 0 | 0 |
| TRAV39 | 0 | 0 |
| TRAV4 | 0 | 0 |
| TRAV40 | 0 | 0 |
| TRAV41 | 0 | 0 |
| TRAV5 | 0 | 0 |
| TRAV6 | 0 | 0 |
| TRAV7 | 0 | 0 |
| TRAV8-1 | 0 | 0 |
| TRAV8-2 | 0 | 0 |
| TRAV8-3 | 0 | 0 |
| TRAV8-4 | 0 | 0 |
| TRAV8-5 | 0 | 0 |
| TRAV8-6 | 0 | 0 |
| TRAV8-7 | 0 | 0 |
| TRAV9-1 | 0 | 0 |
| TRAV9-2 | 0 | 0 |
| TRBV1 | 0 | 0 |
| TRBV10-2 | 0 | 0 |
| TRBV11-1 | 0 | 0 |
| TRBV11-2 | 0 | 0 |
| TRBV12-1 | 0 | 0 |

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|-------------|---|---|
| TRBV19 | 0 | 0 |
| TRBV2 | 0 | 0 |
| TRBV20-1 | 0 | 0 |
| TRBV20OR9-2 | 0 | 0 |
| TRBV21OR9-2 | 0 | 0 |
| TRBV22OR9-2 | 0 | 0 |
| TRBV23OR9-2 | 0 | 0 |
| TRBV24OR9-2 | 0 | 0 |
| TRBV25OR9-2 | 0 | 0 |
| TRBV26OR9-2 | 0 | 0 |
| TRBV28 | 0 | 0 |
| TRBV29OR9-2 | 0 | 0 |
| TRBV30 | 0 | 0 |
| TRBV3-1 | 0 | 0 |
| TRBV4-1 | 0 | 0 |
| TRBV4-2 | 0 | 0 |
| TRBV5-1 | 0 | 0 |
| TRBV5-2 | 0 | 0 |
| TRBV5-3 | 0 | 0 |
| TRBV5-4 | 0 | 0 |
| TRBV5-5 | 0 | 0 |
| TRBV5-6 | 0 | 0 |
| TRBV5-7 | 0 | 0 |
| TRBV6-1 | 0 | 0 |
| TRBV6-4 | 0 | 0 |
| TRBV6-5 | 0 | 0 |
| TRBV6-6 | 0 | 0 |
| TRBV6-7 | 0 | 0 |
| TRBV6-8 | 0 | 0 |
| TRBV6-9 | 0 | 0 |
| TRBV7-1 | 0 | 0 |
| TRBV7-3 | 0 | 0 |
| TRBV7-4 | 0 | 0 |
| TRBV7-5 | 0 | 0 |
| TRBV7-6 | 0 | 0 |
| TRBV7-7 | 0 | 0 |
| TRBV7-8 | 0 | 0 |
| TRBV9 | 0 | 0 |
| TRBVAOR9-2 | 0 | 0 |
| TRBVB | 0 | 0 |
| TRD@ | 0 | 0 |
| TRDC | 0 | 0 |
| TRDD1 | 0 | 0 |
| TRDD2 | 0 | 0 |
| TRDD3 | 0 | 0 |
| TRDJ1 | 0 | 0 |
| TRDJ2 | 0 | 0 |

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|---------|------------|----------|
| TRDJ3 | 0 | 0 |
| TRDJ4 | 0 | 0 |
| TRDMT1 | 0.29165752 | 0.367413 |
| TRDN | 0 | 0 |
| TRDV1 | 0 | 0 |
| TRDV2 | 0 | 0 |
| TRDV3 | 0 | 0 |
| TREH | 0 | 0 |
| TREM1 | 0.34280431 | 0.597128 |
| TREM2 | 0.02000507 | 0.045452 |
| TREML1 | 0.1072721 | 0.073118 |
| TREML2 | 12.9967653 | 10.91291 |
| TREML2P | 0 | 0 |
| TREML3 | 0 | 0 |
| TREML4 | 2.91510627 | 2.596208 |
| TRERF1 | 37.5765381 | 25.36611 |
| TREX1 | 1.33144992 | 1.11797 |
| TREX2 | 0.11727276 | 0.114192 |
| TRG@ | 0 | 0 |
| TRGC1 | 0 | 0 |
| TRGC2 | 0 | 0 |
| TRGJ1 | 0 | 0 |
| TRGJ2 | 0 | 0 |
| TRGJP | 0 | 0 |
| TRGJP1 | 0 | 0 |
| TRGJP2 | 0 | 0 |
| TRGV1 | 0 | 0 |
| TRGV10 | 0 | 0 |
| TRGV11 | 0 | 0 |
| TRGV2 | 0 | 0 |
| TRGV3 | 0 | 0 |
| TRGV4 | 0 | 0 |
| TRGV5 | 0 | 0 |
| TRGV5P | 0 | 0 |
| TRGV6 | 0 | 0 |
| TRGV7 | 0 | 0 |
| TRGV8 | 0 | 0 |
| TRGV9 | 0 | 0 |
| TRGVA | 0 | 0 |
| TRGVB | 0 | 0 |
| TRH | 0.04186228 | 0.071334 |
| TRHDE | 0.00378698 | 0 |
| TRHR | 0 | 0 |
| TRIAP1 | 1.76100488 | 1.859078 |
| TRIB1 | 90.7046551 | 95.6785 |
| TRIB2 | 3.12899662 | 2.096991 |
| TRIB3 | 0.03429907 | 0.165598 |

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|---------|------------|----------|
| TRIM10 | 0 | 0.006736 |
| TRIM11 | 16.1108259 | 15.58612 |
| TRIM13 | 2.84824513 | 2.790467 |
| TRIM14 | 1.92160039 | 1.250915 |
| TRIM15 | 0 | 0 |
| TRIM16 | 0.23917129 | 0.164668 |
| TRIM16L | 0.05304069 | 0.036153 |
| TRIM17 | 0.11170954 | 0.072516 |
| TRIM2 | 0.00608548 | 0 |
| TRIM21 | 45.9963176 | 49.05796 |
| TRIM22 | 32.3785876 | 27.42512 |
| TRIM23 | 6.38307484 | 5.775297 |
| TRIM24 | 8.28413789 | 7.31761 |
| TRIM25 | 11.435086 | 9.252153 |
| TRIM26 | 9.94604246 | 9.559522 |
| TRIM27 | 12.144979 | 10.73181 |
| TRIM28 | 29.7509499 | 27.94534 |
| TRIM29 | 0 | 0 |
| TRIM3 | 2.2430712 | 2.343682 |
| TRIM31 | 0 | 0 |
| TRIM32 | 0 | 0 |
| TRIM33 | 19.2301474 | 18.49456 |
| TRIM34 | 0.81454067 | 0.414471 |
| TRIM35 | 1.78568579 | 1.350495 |
| TRIM36 | 6.35229746 | 14.65722 |
| TRIM37 | 4.23572813 | 3.66736 |
| TRIM38 | 23.4256587 | 24.24966 |
| TRIM39 | 18.4337724 | 16.55951 |
| TRIM4 | 8.21622451 | 8.543004 |
| TRIM40 | 0 | 0.01246 |
| TRIM41 | 12.9346442 | 13.29516 |
| TRIM42 | 0 | 0 |
| TRIM43 | 0 | 0 |
| TRIM44 | 17.8160229 | 17.16622 |
| TRIM45 | 0.0410995 | 0.02668 |
| TRIM46 | 0.02676681 | 0.007602 |
| TRIM47 | 0.71540013 | 1.66763 |
| TRIM48 | 0 | 0 |
| TRIM49 | 0.00972045 | 0 |
| TRIM49B | 0 | 0 |
| TRIM5 | 5.15605808 | 3.402709 |
| TRIM50 | 0.09244161 | 0.07001 |
| TRIM52 | 9.72925846 | 9.325957 |
| TRIM53 | 0 | 0 |
| TRIM54 | 0.01196661 | 0 |
| TRIM55 | 0 | 0 |
| TRIM56 | 9.73318112 | 9.117688 |

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|--------------|------------|----------|
| TRIM58 | 0.01630503 | 0.009261 |
| TRIM59 | 1.60564963 | 1.472792 |
| TRIM6 | 0.01815659 | 0.006875 |
| TRIM60 | 0 | 0.012967 |
| TRIM60P10Y | 0 | 0 |
| TRIM60P11Y | 0 | 0 |
| TRIM60P12Y | 0 | 0 |
| TRIM60P1Y | 0 | 0 |
| TRIM60P2Y | 0 | 0 |
| TRIM60P3Y | 0 | 0 |
| TRIM60P4Y | 0 | 0 |
| TRIM60P5Y | 0 | 0 |
| TRIM60P6Y | 0 | 0 |
| TRIM60P7Y | 0 | 0 |
| TRIM60P8Y | 0 | 0 |
| TRIM60P9Y | 0 | 0 |
| TRIM61 | 0.03992151 | 0.030234 |
| TRIM62 | 6.80955785 | 6.094092 |
| TRIM63 | 0 | 0 |
| TRIM64 | 0 | 0 |
| TRIM65 | 2.88643441 | 3.594327 |
| TRIM66 | 0.71356347 | 0.646536 |
| TRIM67 | 0.00493437 | 0.005606 |
| TRIM68 | 3.05822996 | 2.67079 |
| TRIM69 | 0.19908257 | 0.075387 |
| TRIM6-TRIM34 | 0.29151239 | 0.331163 |
| TRIM7 | 0.01782941 | 0.005064 |
| TRIM71 | 0.00670023 | 0 |
| TRIM72 | 0.06015831 | 0 |
| TRIM73 | 0.38935798 | 0.353853 |
| TRIM74 | 0.38935798 | 0.406931 |
| TRIM75 | 0.01494338 | 0.016976 |
| TRIM8 | 33.1011041 | 56.59657 |
| TRIM9 | 0.03650759 | 0.017281 |
| TRIML1 | 0 | 0 |
| TRIML2 | 0 | 0 |
| TRIMP1 | 0 | 0 |
| TRIO | 2.39097095 | 2.270101 |
| TRIOBP | 10.5184682 | 17.22057 |
| TRIP10 | 0.40775132 | 1.223355 |
| TRIP11 | 3.63461371 | 3.492742 |
| TRIP12 | 44.0589932 | 43.90208 |
| TRIP13 | 0.02682943 | 0.01016 |
| TRIP4 | 13.3222635 | 11.77767 |
| TRIP6 | 0.28801823 | 0.354459 |
| TRIT1 | 0.36505737 | 0.347461 |
| TRLP1 | 0 | 0 |

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|----------|------------|----------|
| TRMEP1 | 0 | 0 |
| TRMT1 | 1.05927789 | 1.193244 |
| TRMT11 | 0.3875637 | 0.464738 |
| TRMT12 | 5.40786666 | 4.852335 |
| TRMT2A | 5.63811801 | 4.612581 |
| TRMT2B | 7.78411501 | 7.003904 |
| TRMT5 | 0.14708588 | 0.198704 |
| TRMT6 | 2.86584996 | 2.997266 |
| TRMT61A | 0.5060092 | 0.633792 |
| TRMT61B | 1.68749945 | 1.515487 |
| TRMU | 8.55358424 | 7.965757 |
| TRNA | 0 | 0 |
| TRNAA44P | 0 | 0 |
| TRNAA45P | 0 | 0 |
| TRNAA46P | 0 | 0 |
| TRNAC31P | 0 | 0 |
| TRNAC32P | 0 | 0 |
| TRNAD20P | 0 | 0 |
| TRNAE27P | 0 | 0 |
| TRNAE28P | 0 | 0 |
| TRNAE29P | 0 | 0 |
| TRNAE30P | 0 | 0 |
| TRNAE31P | 0 | 0 |
| TRNAE32P | 0 | 0 |
| TRNAE33P | 0 | 0 |
| TRNAE34P | 0 | 0 |
| TRNAE35P | 0 | 0 |
| TRNAE36P | 0 | 0 |
| TRNAE37P | 0 | 0 |
| TRNAE38P | 0 | 0 |
| TRNAE39P | 0 | 0 |
| TRNAE40P | 0 | 0 |
| TRNAE41P | 0 | 0 |
| TRNAE42P | 0 | 0 |
| TRNAE43P | 0 | 0 |
| TRNAF13P | 0 | 0 |
| TRNAF14P | 0 | 0 |
| TRNAF15P | 0 | 0 |
| TRNAF16P | 0 | 0 |
| TRNAF17P | 0 | 0 |
| TRNAG32P | 0 | 0 |
| TRNAG33P | 0 | 0 |
| TRNAG34P | 0 | 0 |
| TRNAG35P | 0 | 0 |
| TRNAI28P | 0 | 0 |
| TRNAI29P | 0 | 0 |
| TRNAI30P | 0 | 0 |

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| TRNAK35P | 0 | 0 |
| TRNAK36P | 0 | 0 |
| TRNAK37P | 0 | 0 |
| TRNAK38P | 0 | 0 |
| TRNAK39P | 0 | 0 |
| TRNAK40P | 0 | 0 |
| TRNAK41P | 0 | 0 |
| TRNAK42P | 0 | 0 |
| TRNAK43P | 0 | 0 |
| TRNAL40P | 0 | 0 |
| TRNAL41P | 0 | 0 |
| TRNAL42P | 0 | 0 |
| TRNAL43P | 0 | 0 |
| TRNAL44P | 0 | 0 |
| TRNAL45P | 0 | 0 |
| TRNAL46P | 0 | 0 |
| TRNAN34P | 0 | 0 |
| TRNAN35P | 0 | 0 |
| TRNAN36P | 0 | 0 |
| TRNAP22P | 0 | 0 |
| TRNAP23P | 0 | 0 |
| TRNAP24P | 0 | 0 |
| TRNAP25P | 0 | 0 |
| TRNAP26P | 0 | 0 |
| TRNAP27P | 0 | 0 |
| TRNAP28P | 0 | 0 |
| TRNAQ33P | 0 | 0 |
| TRNAQ34P | 0 | 0 |
| TRNAQ35P | 0 | 0 |
| TRNAQ36P | 0 | 0 |
| TRNAQ37P | 0 | 0 |
| TRNAQ38P | 0 | 0 |
| TRNAQ39P | 0 | 0 |
| TRNAQ40P | 0 | 0 |
| TRNAQ41P | 0 | 0 |
| TRNAQ42P | 0 | 0 |
| TRNAQ43P | 0 | 0 |
| TRNAQ44P | 0 | 0 |
| TRNAQ45P | 0 | 0 |
| TRNAQ46P | 0 | 0 |
| TRNAQ47P | 0 | 0 |
| TRNAQ48P | 0 | 0 |
| TRNAQ49P | 0 | 0 |
| TRNAQ50P | 0 | 0 |
| TRNAQ51P | 0 | 0 |
| TRNAQ52P | 0 | 0 |
| TRNAQ53P | 0 | 0 |

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|-----------|------------|----------|
| TRNAQ54P | 0 | 0 |
| TRNAR30P | 0 | 0 |
| TRNAR31P | 0 | 0 |
| TRNAR32P | 0 | 0 |
| TRNAR33P | 0 | 0 |
| TRNAR34P | 0 | 0 |
| TRNAS29P | 0 | 0 |
| TRNAS30P | 0 | 0 |
| TRNAS31P | 0 | 0 |
| TRNAS32P | 0 | 0 |
| TRNASUP4P | 0 | 0 |
| TRNASUP5P | 0 | 0 |
| TRNASUP6P | 0 | 0 |
| TRNAU1AP | 5.68708738 | 5.33481 |
| TRNAV33P | 0 | 0 |
| TRNAV34P | 0 | 0 |
| TRNAV35P | 0 | 0 |
| TRNAV36P | 0 | 0 |
| TRNAV37P | 0 | 0 |
| TRNAY16P | 0 | 0 |
| TRNAY17P | 0 | 0 |
| TRNC | 0 | 0 |
| TRND | 0 | 0 |
| TRNE | 0 | 0 |
| TRNF | 0 | 0 |
| TRNG | 0 | 0 |
| TRNH | 0 | 0 |
| TRNI | 0 | 0 |
| TRNK | 0 | 0 |
| TRNL1 | 0 | 0 |
| TRNL2 | 0 | 0 |
| TRNM | 0 | 0 |
| TRNN | 0 | 0 |
| TRNP | 0 | 0 |
| TRNP1 | 0.47466114 | 0.796579 |
| TRNQ | 0 | 0 |
| TRNR | 0 | 0 |
| TRNS1 | 0 | 0 |
| TRNS2 | 0 | 0 |
| TRNT | 0 | 0 |
| TRNT1 | 6.45725235 | 5.457055 |
| TRNV | 0 | 0 |
| TRNW | 0 | 0 |
| TRNY | 0 | 0 |
| TRO | 0.00452937 | 0.025727 |
| TROAP | 0.01474427 | 0.01675 |
| TROVE2 | 6.88435266 | 6.00652 |

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|----------------|------------|----------|
| TRPA1 | 0 | 0 |
| TRPC1 | 0.03100319 | 0.04109 |
| TRPC2 | 0 | 0 |
| TRPC3 | 0.02323883 | 0.065999 |
| TRPC4 | 0 | 0 |
| TRPC4AP | 107.766428 | 115.8239 |
| TRPC5 | 0.00720046 | 0.00818 |
| TRPC6 | 6.55104089 | 2.387475 |
| TRPC6P (NC_000 | 0 | 0 |
| TRPC6P (NC_000 | 0 | 0 |
| TRPC7 | 0 | 0.027677 |
| TRPM1 | 0.0038735 | 0.0044 |
| TRPM2 | 0.07156341 | 0.13414 |
| TRPM3 | 0 | 0.003557 |
| TRPM4 | 0.05703542 | 0.047122 |
| TRPM5 | 0.00535132 | 0.006079 |
| TRPM6 | 1.07559853 | 0.725767 |
| TRPM7 | 6.63224873 | 6.400563 |
| TRPM8 | 0 | 0.004249 |
| TRPS1 | 0.05051131 | 0.066945 |
| TRPT1 | 10.5126655 | 10.16539 |
| TRPV1 | 3.3336467 | 3.357713 |
| TRPV2 | 15.132785 | 16.77808 |
| TRPV3 | 0.00614776 | 0.020952 |
| TRPV4 | 0.03897188 | 0.007379 |
| TRPV5 | 0 | 0 |
| TRPV6 | 0.00726515 | 0.02476 |
| TRRAP | 5.12104105 | 4.669626 |
| TRUB1 | 0.64086589 | 0.65103 |
| TRUB2 | 0.89127532 | 0.680535 |
| TRY3 | 0 | 0 |
| TRY5 | 0 | 0 |
| TRY6 | 0 | 0 |
| TRYX3 | 0 | 0 |
| TSC1 | 5.4083245 | 4.839955 |
| TSC2 | 10.3222727 | 10.03836 |
| TSC22D1 | 2.78707876 | 3.087474 |
| TSC22D2 | 13.7006899 | 17.29696 |
| TSC22D3 | 123.673572 | 135.0768 |
| TSC22D4 | 72.2784353 | 74.13104 |
| TSEN15 | 3.71161455 | 3.04657 |
| TSEN2 | 0.04083721 | 0.013255 |
| TSEN34 | 5.08700605 | 2.9795 |
| TSEN54 | 41.5848766 | 47.90558 |
| TSEPA | 0.03652043 | 0.011854 |
| TSFM | 1.83505108 | 1.483986 |
| TSG1 | 0 | 0 |

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|----------|------------|----------|
| TSG101 | 32.922324 | 35.03357 |
| TSGA10 | 0.46637608 | 0.455014 |
| TSGA10IP | 0.08527075 | 0.069192 |
| TSGA13 | 0 | 0 |
| TSGA14 | 0.22062883 | 0.20322 |
| TSHB | 0 | 0 |
| TSHR | 0.0043821 | 0.004978 |
| TSHZ1 | 4.27956706 | 4.438485 |
| TSHZ2 | 0.00966238 | 0.021953 |
| TSHZ3 | 0 | 0.009723 |
| TSIX | 0 | 0 |
| TSKS | 0 | 0.013182 |
| TSKU | 0.02327527 | 0.035255 |
| TSLP | 0.007477 | 0.008494 |
| TSN | 13.0174438 | 13.31623 |
| TSNARE1 | 0.50552708 | 0.417663 |
| TSNAX | 32.5218232 | 34.81818 |
| TSNAXIP1 | 0 | 0.009765 |
| TSP50 | 0.01560901 | 0 |
| TSPAN1 | 0 | 0 |
| TSPAN10 | 0 | 0 |
| TSPAN11 | 0.00378017 | 0 |
| TSPAN12 | 0.01640041 | 0.037262 |
| TSPAN13 | 0.16581491 | 0.075347 |
| TSPAN14 | 43.7051018 | 66.4322 |
| TSPAN15 | 0.02475024 | 0.014058 |
| TSPAN16 | 5.903266 | 5.833479 |
| TSPAN17 | 0.13811075 | 0.212271 |
| TSPAN18 | 12.0996769 | 15.73131 |
| TSPAN19 | 0 | 0 |
| TSPAN2 | 2.26184571 | 2.167311 |
| TSPAN3 | 18.4562083 | 21.96121 |
| TSPAN31 | 5.30466683 | 4.529935 |
| TSPAN32 | 11.1849871 | 12.94934 |
| TSPAN33 | 0.41677756 | 0.485926 |
| TSPAN4 | 0.29696795 | 0.472304 |
| TSPAN5 | 0.01468249 | 0.01668 |
| TSPAN6 | 0 | 0 |
| TSPAN7 | 0.01164193 | 0 |
| TSPAN8 | 0 | 0 |
| TSPAN9 | 0.09257967 | 0.066424 |
| TSP0 | 66.0137123 | 75.57182 |
| TSPY1 | 0 | 0 |
| TSPY10 | 0 | 0 |
| TSPY11P | 0 | 0 |
| TSPY12P | 0 | 0 |
| TSPY13P | 0 | 0 |

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| TSPY14P | 0 | 0 |
| TSPY15P | 0 | 0 |
| TSPY16P | 0 | 0 |
| TSPY17P | 0 | 0 |
| TSPY18P | 0 | 0 |
| TSPY19P | 0 | 0 |
| TSPY2 | 0 | 0 |
| TSPY20P | 0 | 0 |
| TSPY21P | 0 | 0 |
| TSPY22P | 0 | 0 |
| TSPY23P | 0 | 0 |
| TSPY3 | 0 | 0 |
| TSPY4 | 0 | 0 |
| TSPY5P | 0 | 0 |
| TSPY6P | 0 | 0 |
| TSPY7P | 0 | 0 |
| TSPY8 | 0 | 0 |
| TSPY9 | 0 | 0 |
| TSPYL1 | 28.9076009 | 27.50468 |
| TSPYL2 | 18.612833 | 15.51896 |
| TSPYL3 | 0 | 0 |
| TSPYL4 | 4.37794679 | 4.280258 |
| TSPYL5 | 0.04239928 | 0.026759 |
| TSPYL6 | 0 | 0 |
| TSR1 | 0.67504641 | 0.65452 |
| TSR2 | 24.5639338 | 21.25324 |
| TSSC1 | 2.11352833 | 1.956886 |
| TSSC4 | 12.5649976 | 12.24447 |
| TSSK1A | 0 | 0 |
| TSSK1B | 0 | 0 |
| TSSK2 | 0 | 0 |
| TSSK3 | 32.8870021 | 41.02363 |
| TSSK4 | 3.31186597 | 2.94526 |
| TSSK6 | 0.61238828 | 0.447225 |
| TST | 6.26286454 | 6.797092 |
| TSTA3 | 17.1392057 | 21.3172 |
| TTBK1 | 0.00589936 | 0.006702 |
| TTBK2 | 3.75999081 | 3.618185 |
| TTC1 | 16.3928842 | 15.92341 |
| TTC12 | 0.89913942 | 0.732545 |
| TTC13 | 8.0609938 | 6.992009 |
| TTC14 | 15.3682125 | 14.839 |
| TTC15 | 9.7462905 | 9.624071 |
| TTC16 | 0.01458067 | 0.04141 |
| TTC17 | 8.97554983 | 7.977681 |
| TTC18 | 0.38124416 | 0.316744 |
| TTC19 | 13.669486 | 11.80528 |

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| TTC21A | 0.23207857 | 0.168284 |
| TTC21B | 1.56745217 | 1.317194 |
| TTC22 | 2.35363288 | 2.526085 |
| TTC23 | 0.02760679 | 0.043906 |
| TTC23L | 0 | 0.017576 |
| TTC24 | 0.02616718 | 0.029726 |
| TTC25 | 0.02018755 | 0.0344 |
| TTC26 | 0.17594419 | 0.088834 |
| TTC27 | 0.06579554 | 0.09966 |
| TTC28 | 0.0338687 | 0.050625 |
| TTC29 | 0 | 0 |
| TTC3 | 15.0765092 | 16.83059 |
| TTC30A | 0.00450318 | 0.005116 |
| TTC30B | 0.46104695 | 0.415393 |
| TTC31 | 10.7478886 | 8.86339 |
| TTC32 | 5.60163927 | 5.288431 |
| TTC33 | 3.08926494 | 3.023596 |
| TTC35 | 6.01208979 | 5.305658 |
| TTC36 | 0.12386057 | 0.140708 |
| TTC37 | 2.36962483 | 1.836249 |
| TTC38 | 11.487403 | 10.83524 |
| TTC39A | 0.09543621 | 0.158456 |
| TTC39B | 0.34638107 | 0.285283 |
| TTC39C | 0.0343676 | 0.047718 |
| TTC3L | 0 | 0 |
| TTC4 | 3.15588964 | 3.229001 |
| TTC5 | 2.76918993 | 2.084283 |
| TTC7A | 8.7313414 | 9.548487 |
| TTC7B | 17.9088798 | 19.997 |
| TTC8 | 1.3934173 | 1.572102 |
| TTC9 | 7.52027364 | 5.658807 |
| TTC9B | 0.07482324 | 0.141667 |
| TTC9C | 12.0540308 | 10.21251 |
| TTF1 | 5.54956138 | 4.994782 |
| TTF2 | 2.8322485 | 4.309651 |
| TTK | 0.4462924 | 0.321902 |
| TTL | 3.53407964 | 4.643813 |
| TTL1 | 0.41634319 | 0.264308 |
| TTL10 | 0.01343472 | 0 |
| TTL11 | 0.20799508 | 0.114767 |
| TTL12 | 4.65905783 | 6.09772 |
| TTL13 | 0.08208439 | 0.186498 |
| TTL2 | 0.00730807 | 0 |
| TTL3 | 32.1251236 | 33.24397 |
| TTL4 | 0.95091551 | 0.841261 |
| TTL5 | 2.04238377 | 1.973428 |
| TTL6 | 0.00588121 | 0 |

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| TTLL7 | 0.1267975 | 0.157139 |
| TTLL8 | 0 | 0.009535 |
| TTLL9 | 0.01308359 | 0 |
| TTMA | 0 | 0 |
| TTN | 0.46379959 | 0.387164 |
| TTPA | 0 | 0 |
| TTPAL | 2.36471542 | 1.867766 |
| TTR | 0 | 0 |
| TTRAP | 18.578747 | 15.86964 |
| TTY1 | 0 | 0 |
| TTY10 | 0 | 0 |
| TTY11 | 0 | 0 |
| TTY12 | 0 | 0 |
| TTY13 | 0 | 0 |
| TTY14 | 0 | 0 |
| TTY15 | 0 | 0 |
| TTY16 | 0 | 0 |
| TTY17A | 0 | 0 |
| TTY17B | 0 | 0 |
| TTY17C | 0 | 0 |
| TTY18 | 0 | 0 |
| TTY19 | 0 | 0 |
| TTY1B | 0 | 0 |
| TTY2 | 0 | 0 |
| TTY20 | 0 | 0 |
| TTY21 | 0 | 0 |
| TTY21B | 0 | 0 |
| TTY22 | 0 | 0 |
| TTY23 | 0 | 0 |
| TTY23B | 0 | 0 |
| TTY2B | 0 | 0 |
| TTY3 | 0 | 0 |
| TTY3B | 0 | 0 |
| TTY4 | 0 | 0 |
| TTY4B | 0 | 0 |
| TTY4C | 0 | 0 |
| TTY5 | 0 | 0 |
| TTY6 | 0 | 0 |
| TTY6B | 0 | 0 |
| TTY7 | 0 | 0 |
| TTY7B | 0 | 0 |
| TTY8 | 0 | 0 |
| TTY8B | 0 | 0 |
| TTY9A | 0 | 0 |
| TTY9B | 0 | 0 |
| TYH1 | 0.01028134 | 0.01168 |
| TYH2 | 0.46243397 | 0.391081 |

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| TTYH3 | 56.9933847 | 76.40065 |
| TUB | 0.00636938 | 0.007236 |
| TUBA1A | 18.1352945 | 10.66658 |
| TUBA1B | 15.9878871 | 13.12114 |
| TUBA1C | 42.3755865 | 32.32872 |
| TUBA3C | 0.01412044 | 0.016041 |
| TUBA3D | 0.42159461 | 0.525287 |
| TUBA3E | 0.02730562 | 0.01551 |
| TUBA4A | 35.6064976 | 30.41392 |
| TUBA4B | 0 | 0 |
| TUBA8 | 0.72932268 | 0.698326 |
| TUBAL3 | 0 | 0.026569 |
| TUBAP | 0 | 0 |
| TUBB | 30.6122732 | 34.79524 |
| TUBB1 | 0.64952395 | 0.560234 |
| TUBB1P1 | 0 | 0 |
| TUBB1P2 | 0 | 0 |
| TUBB2A | 0.05188237 | 0.02947 |
| TUBB2B | 0.01041373 | 0.02366 |
| TUBB2C | 24.2366166 | 27.93852 |
| TUBB3 | 0.02457666 | 0.055839 |
| TUBB4 | 0.01838682 | 0.031332 |
| TUBB4Q | 1.48224555 | 2.544084 |
| TUBB6 | 0.11584204 | 0.184238 |
| TUBB8 | 2.97661989 | 6.047316 |
| TUBBP1 | 0 | 0 |
| TUBBP2 | 0 | 0 |
| TUBBP3 | 0 | 0 |
| TUBBP5 | 0 | 0 |
| TUBD1 | 4.54187975 | 4.029163 |
| TUBE1 | 1.26316747 | 1.268604 |
| TUBG1 | 1.65961095 | 1.897587 |
| TUBG1P | 0 | 0 |
| TUBG2 | 0.16191124 | 0.183934 |
| TUBGCP2 | 23.2475204 | 21.90589 |
| TUBGCP3 | 9.98838345 | 9.265458 |
| TUBGCP4 | 15.6855644 | 14.11287 |
| TUBGCP5 | 0.33583539 | 0.179196 |
| TUBGCP6 | 16.9837447 | 16.57156 |
| TUFM | 18.7410724 | 18.54527 |
| TUFML | 0 | 0 |
| TUFT1 | 2.37895098 | 2.287934 |
| TUG1 | 0 | 0 |
| TULP1 | 0 | 0 |
| TULP2 | 0.01235331 | 0 |
| TULP3 | 0.80949315 | 0.797527 |
| TULP4 | 0.30622167 | 0.334988 |

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| TUSC1 | 0.09363508 | 0.096701 |
| TUSC2 | 12.1376911 | 12.92238 |
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| TUSC3 | 3.52409454 | 3.296055 |
| TUSC4 | 16.4892169 | 14.74159 |
| TUSC5 | 0.01169373 | 0.013284 |
| TUT1 | 4.75187883 | 4.917008 |
| TWF1 | 11.4551803 | 12.25239 |
| TWF1P1 | 0 | 0 |
| TWF1P2 | 0 | 0 |
| TWF2 | 31.8808711 | 47.57914 |
| TWIST1 | 0.05048099 | 0.028674 |
| TWIST2 | 0.03156957 | 0 |
| TWISTNB | 0.32413152 | 0.282301 |
| TWSG1 | 1.57005528 | 1.25043 |
| TXK | 0.77925043 | 0.795077 |
| TXLNA | 8.61442355 | 7.913561 |
| TXLNB | 0.0044878 | 0.005098 |
| TXN | 64.3590347 | 44.10282 |
| TXN2 | 3.61963033 | 3.092907 |
| TXNDC11 | 25.206936 | 33.97377 |
| TXNDC12 | 38.9231439 | 37.9624 |
| TXNDC15 | 4.20620609 | 3.709994 |
| TXNDC16 | 1.1131601 | 0.98122 |
| TXNDC17 | 3.20192992 | 2.774126 |
| TXNDC2 | 0.22714073 | 0.224379 |
| TXNDC3 | 0.50017007 | 0.485554 |
| TXNDC5 | 7.73234211 | 6.466265 |
| TXNDC6 | 0.20700045 | 0.134375 |
| TXNDC8 | 0.04273441 | 0 |
| TXNDC9 | 6.95347547 | 7.2592 |
| TXNIP | 907.923094 | 699.018 |
| TXNL1 | 13.3710942 | 12.4116 |
| TXNL4A | 10.4444506 | 10.12577 |
| TXNL4B | 2.66364525 | 2.00076 |
| TXNRD1 | 53.0525774 | 54.22535 |
| TXNRD2 | 5.97359199 | 6.871225 |
| TYK2 | 142.60401 | 180.291 |
| TYMP | 71.2531708 | 87.97929 |
| TYMS | 1.20865769 | 1.131638 |
| TYR | 0 | 0 |
| TYRL | 0 | 0 |
| TYRO3 | 0.00532422 | 0.006048 |
| TYRO3P | 0 | 0 |
| TYROBP | 655.462835 | 701.2769 |
| TYRP1 | 0 | 0 |
| TYSND1 | 1.73091231 | 1.62082 |

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| TYW1 | 1.73580487 | 1.677909 |
| TYW1B | 1.40255451 | 1.209746 |
| TYW3 | 0.43287446 | 0.321144 |
| U2AF1 | 62.1896309 | 60.78995 |
| U2AF1L4 | 28.5535825 | 25.07631 |
| U2AF2 | 56.5353757 | 54.23926 |
| U58 | 0 | 0 |
| UACA | 0 | 0.003289 |
| UAP1 | 12.4778608 | 16.8951 |
| UAP1L1 | 2.79296373 | 4.556981 |
| UBA1 | 66.7147768 | 62.82739 |
| UBA2 | 12.3232897 | 12.07251 |
| UBA3 | 46.8332054 | 47.5786 |
| UBA5 | 2.80251647 | 4.335411 |
| UBA52 | 48.3560173 | 47.58328 |
| UBA52P1 | 0 | 0 |
| UBA52P2 | 0 | 0 |
| UBA52P3 | 0 | 0 |
| UBA52P4 | 0 | 0 |
| UBA52P5 | 0 | 0 |
| UBA52P6 | 0 | 0 |
| UBA52P7 | 0 | 0 |
| UBA52P8 | 0 | 0 |
| UBA52P9 | 0 | 0 |
| UBA6 | 10.2533955 | 9.77337 |
| UBA7 | 36.7007211 | 37.09293 |
| UBAC1 | 18.4126492 | 20.17505 |
| UBAC2 | 12.5288366 | 12.23472 |
| UBAP1 | 25.061272 | 24.11217 |
| UBAP2 | 3.37170924 | 3.088784 |
| UBAP2L | 25.3322924 | 24.07803 |
| UBASH3A | 0.03374852 | 0.028754 |
| UBASH3B | 8.39124827 | 5.034454 |
| UBB | 509.090171 | 476.7182 |
| UBBP1 | 0 | 0 |
| UBBP2 | 0 | 0 |
| UBBP3 | 0 | 0 |
| UBBP4 | 0 | 0 |
| UBC | 654.987253 | 563.1188 |
| UBD | 0.02123771 | 0 |
| UBE2A | 22.2075634 | 23.50713 |
| UBE2B | 37.575487 | 42.10534 |
| UBE2C | 0.21012198 | 0.298377 |
| UBE2CBP | 0.01147045 | 0.026061 |
| UBE2CP1 | 0 | 0 |
| UBE2D1 | 2.37139719 | 1.991177 |
| UBE2D2 | 16.6398591 | 17.47853 |

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| UBE2D3 | 92.2373738 | 91.53621 |
| UBE2D3P | 0 | 0 |
| UBE2D4 | 4.63219023 | 4.630089 |
| UBE2DNL | 0 | 0 |
| UBE2E1 | 22.7320256 | 24.16209 |
| UBE2E2 | 0.07167726 | 0.149282 |
| UBE2E3 | 27.8570221 | 29.18046 |
| UBE2E4P | 0 | 0 |
| UBE2F | 15.6525359 | 18.82231 |
| UBE2G1 | 14.2550545 | 13.32185 |
| UBE2G2 | 7.60387176 | 7.216856 |
| UBE2H | 22.5282413 | 20.65432 |
| UBE2HP | 0 | 0 |
| UBE2I | 40.3619321 | 40.75552 |
| UBE2J1 | 17.5582335 | 16.01326 |
| UBE2J2 | 18.8339341 | 18.33773 |
| UBE2K | 10.7872575 | 11.36649 |
| UBE2L1 | 0 | 0 |
| UBE2L3 | 15.7201994 | 15.92605 |
| UBE2L4 | 0 | 0 |
| UBE2L5P | 0 | 0 |
| UBE2L6 | 25.6019655 | 23.61057 |
| UBE2L7P | 0 | 0 |
| UBE2M | 26.6127713 | 25.10758 |
| UBE2MP1 | 0 | 0 |
| UBE2N | 10.1501598 | 9.481041 |
| UBE2NL | 0.05300504 | 0.020072 |
| UBE2O | 4.12654021 | 4.513862 |
| UBE2Q1 | 29.9299468 | 29.25796 |
| UBE2Q2 | 10.5868028 | 10.8342 |
| UBE2Q2P4Y | 0 | 0 |
| UBE2Q2P5Y | 0 | 0 |
| UBE2R2 | 16.2843712 | 13.86376 |
| UBE2S | 6.83190855 | 5.053776 |
| UBE2SP1 | 0 | 0 |
| UBE2T | 0.76413648 | 0.605019 |
| UBE2U | 0 | 0 |
| UBE2V1 | 1.44418045 | 1.952236 |
| UBE2V1P1 | 0 | 0 |
| UBE2V1P2 | 0 | 0 |
| UBE2V1P3 | 0 | 0 |
| UBE2V2 | 6.74631682 | 6.629528 |
| UBE2W | 9.06811749 | 8.012954 |
| UBE2Z | 20.4129427 | 19.04625 |
| UBE3A | 1.6384951 | 1.654539 |
| UBE3AP1 | 0 | 0 |
| UBE3AP2 | 0 | 0 |

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| UBE3B | 5.28752215 | 5.364771 |
| UBE3C | 6.73654688 | 6.15453 |
| UBE4A | 20.8810866 | 18.35275 |
| UBE4B | 10.104977 | 9.764378 |
| UBFD1 | 3.05295822 | 2.41709 |
| UBIAD1 | 1.97939624 | 1.967547 |
| UBL3 | 23.2749349 | 25.2316 |
| UBL4A | 5.60067384 | 8.113684 |
| UBL4B | 0 | 0 |
| UBL5 | 136.644396 | 128.7679 |
| UBL7 | 9.80304227 | 8.443727 |
| UBLCP1 | 10.6269336 | 9.865589 |
| UBN1 | 16.9921407 | 17.97815 |
| UBN2 | 6.28660943 | 6.743715 |
| UBOX5 | 7.12500821 | 8.149297 |
| UBP1 | 15.1432743 | 15.04619 |
| UBQLN1 | 29.8531451 | 32.28616 |
| UBQLN1P | 0 | 0 |
| UBQLN2 | 10.6207812 | 10.37478 |
| UBQLN3 | 0 | 0 |
| UBQLN4 | 4.74224032 | 4.583598 |
| UBQLN4P | 0 | 0 |
| UBQLNL | 0.10809939 | 0.040934 |
| UBR1 | 5.18849158 | 4.806 |
| UBR2 | 40.2307016 | 35.6327 |
| UBR3 | 2.5214539 | 2.203855 |
| UBR4 | 30.445823 | 29.16534 |
| UBR5 | 27.6682075 | 25.54288 |
| UBR7 | 8.75391419 | 10.65584 |
| UBTD1 | 10.0332825 | 12.99338 |
| UBTD2 | 1.51326594 | 1.51312 |
| UBTF | 15.9890105 | 29.39858 |
| UBTFL1 | 0 | 0 |
| UBTFL2 | 0.01765351 | 0 |
| UBTFL3 | 0 | 0 |
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| UBTFL6 | 0 | 0 |
| UBTFL7 | 0 | 0 |
| UBXN1 | 60.9555173 | 61.40826 |
| UBXN10 | 0 | 0.008037 |
| UBXN11 | 1.95844058 | 1.464 |
| UBXN2A | 1.88518263 | 2.003023 |
| UBXN2B | 46.3611037 | 48.98144 |
| UBXN4 | 49.8605195 | 51.38809 |
| UBXN6 | 49.3257312 | 48.83755 |
| UBXN7 | 11.404246 | 10.36533 |
| UBXN8 | 0.26263425 | 0.165754 |

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| UCA1 | 0 | 0 |
| UCHL1 | 0 | 0 |
| UCHL3 | 5.3061558 | 5.659979 |
| UCHL5 | 4.91372973 | 4.347847 |
| UCK1 | 12.225376 | 11.72881 |
| UCK2 | 0.15138238 | 0.229297 |
| UCKL1 | 5.99904424 | 6.593489 |
| UCKL10S | 0 | 0 |
| UCMA | 0 | 0 |
| UCN | 0.92306331 | 0.621401 |
| UCN2 | 0.01415847 | 0.016084 |
| UCN3 | 0.02961314 | 0 |
| UCP1 | 0.02102533 | 0 |
| UCP2 | 34.6930734 | 27.10655 |
| UCP3 | 0.88083166 | 0.870419 |
| UCRC | 25.8126371 | 26.60434 |
| UEVLD | 1.05176266 | 0.969382 |
| UFC1 | 14.0168873 | 11.6871 |
| UFD1L | 17.105354 | 16.16215 |
| UFM1 | 16.2075312 | 14.82144 |
| UFSP1 | 0.12665862 | 0.143886 |
| UFSP2 | 2.23874595 | 1.792532 |
| UGCG | 1.72107169 | 1.50285 |
| UGCGL1 | 12.6655964 | 10.79213 |
| UGCGL2 | 0.2784812 | 0.30153 |
| UGDH | 1.33180209 | 1.041088 |
| UGP2 | 21.2755298 | 18.98459 |
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| UGT1A10 | 0 | 0 |
| UGT1A11P | 0 | 0 |
| UGT1A12P | 0 | 0 |
| UGT1A13P | 0 | 0 |
| UGT1A2P | 0 | 0 |
| UGT1A3 | 0 | 0 |
| UGT1A4 | 0 | 0 |
| UGT1A5 | 0 | 0 |
| UGT1A6 | 0 | 0 |
| UGT1A7 | 0 | 0 |
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| UGT1A9 | 0 | 0 |
| UGT2A1 | 0.00808045 | 0 |
| UGT2A2 | 0 | 0 |
| UGT2A3 | 1.43756894 | 0.844707 |
| UGT2B10 | 0.02288679 | 0.026 |
| UGT2B11 | 0.15872782 | 0.208058 |
| UGT2B15 | 0 | 0 |
| UGT2B17 | 0 | 0 |

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| UGT2B24P | 0 | 0 |
| UGT2B25P | 0 | 0 |
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| UGT2B28 | 16.7697948 | 10.64601 |
| UGT2B29P | 0 | 0 |
| UGT2B4 | 0.01999556 | 0.011358 |
| UGT2B7 | 0.0334266 | 0.025315 |
| UGT3A1 | 0 | 0.008461 |
| UGT3A2 | 0 | 0.010203 |
| UGT8 | 0.26450826 | 0.272533 |
| UHKM1 | 16.6245117 | 15.80535 |
| UHRF1 | 0.79181137 | 1.19369 |
| UHRF1BP1 | 6.99534784 | 8.408015 |
| UHRF1BP1L | 8.23688706 | 8.452262 |
| UHRF2 | 33.5383352 | 34.99324 |
| UIMC1 | 13.9442191 | 10.45661 |
| ULBP1 | 0 | 0.007602 |
| ULBP2 | 0.01558586 | 0 |
| ULBP3 | 0 | 0 |
| ULK1 | 74.0183643 | 94.14702 |
| ULK2 | 0.31058318 | 0.29533 |
| ULK3 | 4.09335665 | 4.387246 |
| ULK4 | 0.47751956 | 0.416441 |
| UMOD | 0 | 0 |
| UMODL1 | 0.01598277 | 0.013618 |
| UMPS | 0.81475135 | 0.826723 |
| UNC119 | 37.6189144 | 37.75902 |
| UNC119B | 6.60783629 | 5.029228 |
| UNC13A | 0.00832522 | 0.004729 |
| UNC13B | 0.0330068 | 0.011249 |
| UNC13C | 0 | 0.002934 |
| UNC13D | 145.86114 | 178.8801 |
| UNC45A | 2.67037809 | 2.32536 |
| UNC45B | 0.00740459 | 0.004206 |
| UNC50 | 26.4702111 | 30.02879 |
| UNC5A | 0.53506736 | 0.748609 |
| UNC5B | 0.12620247 | 0.22461 |
| UNC5C | 0.00576668 | 0.026204 |
| UNC5CL | 2.75926673 | 2.80672 |
| UNC5D | 0 | 0.003276 |
| UNC84A | 4.70027359 | 4.55295 |
| UNC84B | 130.924112 | 170.5023 |
| UNC93A | 0 | 0 |
| UNC93B1 | 41.5874689 | 43.08605 |
| UNC93B3 | 0 | 0 |
| UNC93B4 | 0 | 0 |

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| UNC93B6 | 0 | 0 |
| UNCX | 0.01317377 | 0.044897 |
| UNG | 1.81860762 | 1.433528 |
| UNGP1 | 0 | 0 |
| UNGP2 | 0 | 0 |
| UNGP3 | 0 | 0 |
| UNK | 6.82842929 | 6.146773 |
| UNKL | 16.0901124 | 17.14951 |
| UNQ5830 | 0 | 0 |
| UNQ9370 | 0 | 0 |
| UNQ9391 | 0 | 0 |
| UOX | 0 | 0 |
| UPB1 | 1.21045689 | 0.993768 |
| UPF1 | 33.3533735 | 33.21572 |
| UPF2 | 13.1791665 | 11.10777 |
| UPF3A | 4.46532039 | 5.173926 |
| UPF3B | 9.11303719 | 7.834637 |
| UPK1A | 0.03438321 | 0.01953 |
| UPK1B | 0.01021639 | 0.023212 |
| UPK2 | 0.20658076 | 0.130377 |
| UPK3A | 0 | 0 |
| UPK3B | 0.8211076 | 1.088256 |
| UPLP | 16.051428 | 14.31324 |
| UPP1 | 28.2862662 | 35.52649 |
| UPP2 | 0 | 0.009261 |
| UPRT | 3.03862592 | 2.260456 |
| UQCC | 3.89927609 | 2.9805 |
| UQCR | 20.6931772 | 19.43259 |
| UQCRB | 7.57463835 | 6.664481 |
| UQCRC1 | 19.3089774 | 17.4153 |
| UQCRC2 | 35.2306173 | 32.84559 |
| UQCRFS1 | 19.4621732 | 18.71391 |
| UQCRFSL1 | 0 | 0 |
| UQCRH | 43.5667199 | 41.74229 |
| UQCRHL | 1.09425514 | 1.021111 |
| UQCRQ | 6.73871806 | 5.711329 |
| URB1 | 0.09726745 | 0.092818 |
| URB2 | 0.37083694 | 0.353192 |
| URG4 | 2.62545971 | 2.921068 |
| URM1 | 8.75852431 | 7.832545 |
| UROC1 | 0.04034282 | 0.09166 |
| UROD | 11.4780368 | 9.187909 |
| UROS | 1.11803828 | 0.970222 |
| USE1 | 4.76508669 | 4.073862 |
| USF1 | 92.5605972 | 84.80078 |
| USF1P | 0 | 0 |
| USF2 | 75.489427 | 83.26945 |

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| USH1C | 0.00633293 | 0 |
| USH1G | 0 | 0.006707 |
| USH2A | 0.0041657 | 0.001183 |
| USHBP1 | 0 | 0.019822 |
| USMG5 | 20.1888802 | 16.71526 |
| USO1 | 8.03893705 | 6.61586 |
| USP1 | 12.6262171 | 12.28393 |
| USP10 | 4.39920361 | 3.633308 |
| USP10P1 | 0 | 0 |
| USP10P2 | 0 | 0 |
| USP11 | 13.8805528 | 13.2566 |
| USP12 | 8.84618685 | 9.034317 |
| USP12P1 | 0 | 0 |
| USP12P2 | 0 | 0 |
| USP12PY | 0 | 0 |
| USP13 | 0.01590218 | 0.021076 |
| USP14 | 4.03204735 | 3.666675 |
| USP15 | 51.8679548 | 47.4128 |
| USP16 | 14.9904104 | 12.11552 |
| USP17 | 0 | 0 |
| USP17L3 | 0 | 0 |
| USP17L4 | 0 | 0 |
| USP17L5 | 0 | 0 |
| USP17L7 | 0 | 0 |
| USP17L8 | 0 | 0 |
| USP18 | 0.78445025 | 0.726989 |
| USP19 | 26.6292194 | 26.08313 |
| USP2 | 0.00516974 | 0.005873 |
| USP20 | 40.4357851 | 44.4121 |
| USP21 | 10.2893718 | 9.071065 |
| USP22 | 29.2904611 | 30.1355 |
| USP24 | 18.4924353 | 16.54095 |
| USP25 | 10.0175037 | 9.779048 |
| USP26 | 0 | 0 |
| USP27X | 0.78650312 | 0.831556 |
| USP28 | 1.64771052 | 1.815103 |
| USP29 | 0 | 0.013244 |
| USP3 | 5.57667577 | 6.581219 |
| USP30 | 4.69470486 | 4.416804 |
| USP31 | 1.26765175 | 1.328439 |
| USP32 | 13.5769893 | 11.49722 |
| USP33 | 23.0131638 | 25.59304 |
| USP34 | 26.2602852 | 23.72883 |
| USP35 | 1.19729666 | 1.001615 |
| USP36 | 19.7559377 | 14.94531 |
| USP37 | 2.94752523 | 2.667448 |
| USP38 | 8.81485483 | 8.735651 |

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| USP39 | 18.5506428 | 18.06791 |
| USP4 | 28.149448 | 27.13163 |
| USP40 | 0.06363372 | 0.068037 |
| USP41 | 0.08055682 | 0.160149 |
| USP42 | 5.95854594 | 6.885629 |
| USP43 | 0.0051672 | 0.00587 |
| USP44 | 0.02369051 | 0.026913 |
| USP45 | 0.09215862 | 0.123389 |
| USP46 | 0.19592769 | 0.182108 |
| USP47 | 12.4740745 | 12.82247 |
| USP48 | 19.882694 | 16.51566 |
| USP49 | 0.51620265 | 0.405979 |
| USP5 | 2.21388631 | 1.594337 |
| USP50 | 0.1942639 | 0.237663 |
| USP51 | 0.16887816 | 0.124701 |
| USP53 | 0.62167393 | 0.593959 |
| USP54 | 0.80171228 | 0.709228 |
| USP6 | 0.22156916 | 0.266689 |
| USP6NL | 1.17362815 | 0.874026 |
| USP7 | 30.55122 | 30.81409 |
| USP8 | 18.1352017 | 16.9307 |
| USP9X | 17.3699311 | 17.90083 |
| USP9Y | 0 | 0.002379 |
| USP9YP1 | 0 | 0 |
| USP9YP10 | 0 | 0 |
| USP9YP11 | 0 | 0 |
| USP9YP2 | 0 | 0 |
| USP9YP3 | 0 | 0 |
| USP9YP4 | 0 | 0 |
| USP9YP5 | 0 | 0 |
| USP9YP6 | 0 | 0 |
| USP9YP7 | 0 | 0 |
| USP9YP8 | 0 | 0 |
| USP9YP9 | 0 | 0 |
| USPL1 | 14.1156231 | 16.25582 |
| UST | 0.03351795 | 0.048956 |
| UTF1 | 0.12720598 | 0.227084 |
| UTP11L | 2.21535195 | 1.969065 |
| UTP14A | 1.5887308 | 1.497619 |
| UTP14C | 2.89007986 | 2.617901 |
| UTP15 | 0.86862516 | 0.74498 |
| UTP18 | 6.78919754 | 7.282046 |
| UTP20 | 0.18435085 | 0.145803 |
| UTP23 | 3.02883186 | 2.936323 |
| UTP3 | 8.23568198 | 7.858005 |
| UTP6 | 10.6501192 | 10.25961 |
| UTRN | 10.2225968 | 9.716595 |

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|---------------|------------|----------|
| UTS2 | 4.95696545 | 5.314832 |
| UTS2D | 0 | 0 |
| UTS2R | 0 | 0 |
| UTY | 0.01192081 | 0.020313 |
| UVRAG | 3.93970584 | 3.661829 |
| UXS1 | 15.9102432 | 22.06278 |
| UXT | 17.9022049 | 13.49477 |
| VAC14 | 4.96431425 | 4.652042 |
| VAMP1 | 47.0742357 | 43.78303 |
| VAMP2 | 51.9828136 | 48.62365 |
| VAMP3 | 30.7036579 | 29.90784 |
| VAMP4 | 6.83372704 | 6.122947 |
| VAMP5 | 14.6386891 | 14.07964 |
| VAMP7 (NC_000 | 6.55705237 | 9.203189 |
| VAMP7 (NC_000 | 19.2066675 | 17.51635 |
| VAMP8 | 20.0335701 | 19.08877 |
| VANGL1 | 0.00967683 | 0.013741 |
| VANGL2 | 0.02752007 | 0.004466 |
| VAPA | 24.9664532 | 25.75658 |
| VAPB | 4.75429933 | 4.127087 |
| VARS | 0.82260261 | 0.745367 |
| VARS2 | 0.87820793 | 0.968315 |
| VASH1 | 0.21269406 | 0.233702 |
| VASH2 | 0.03293294 | 0.064135 |
| VASN | 0 | 0 |
| VASP | 343.912376 | 419.1206 |
| VAT1 | 8.70592022 | 8.34853 |
| VAT1L | 0 | 0.006342 |
| VAV1 | 53.8737705 | 64.52619 |
| VAV2 | 0.06067917 | 0.059085 |
| VAV3 | 9.70266968 | 7.395698 |
| VAX1 | 0.01089772 | 0.008253 |
| VAX2 | 0 | 0 |
| VBP1 | 18.1582404 | 15.62509 |
| VCAM1 | 0 | 0 |
| VCAN | 0.05405866 | 0.023772 |
| VCL | 44.1417058 | 31.37259 |
| VCP | 48.6268668 | 51.5396 |
| VCPIP1 | 18.7391862 | 15.01583 |
| VCX | 0 | 0 |
| VCX2 | 0 | 0 |
| VCX3A | 0 | 0 |
| VCX3B | 0 | 0 |
| VCY | 0 | 0 |
| VCY1B | 0 | 0 |
| VDAC1 | 12.2822393 | 19.5604 |
| VDAC1LP | 0 | 0 |

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|----------|------------|----------|
| VDAC1P6 | 0 | 0 |
| VDAC2 | 19.5005398 | 19.43545 |
| VDAC2P | 0 | 0 |
| VDAC3 | 28.3761271 | 25.65191 |
| VDAC4P | 0 | 0 |
| VDAC5P | 0 | 0 |
| VDR | 29.8317523 | 37.99608 |
| VEGFA | 49.4023372 | 77.59556 |
| VEGFB | 63.8846595 | 79.75234 |
| VEGFC | 0 | 0 |
| VENTX | 1.75283763 | 1.911998 |
| VENTXP1 | 0 | 0 |
| VENTXP2 | 0 | 0 |
| VENTXP3 | 0 | 0 |
| VENTXP4 | 0 | 0 |
| VENTXP5 | 0 | 0 |
| VENTXP6 | 0 | 0 |
| VENTXP7 | 0 | 0 |
| VEPH1 | 0 | 0 |
| VEZF1 | 34.3221623 | 36.25299 |
| VEZF1L1 | 0 | 0 |
| VEZT | 1.88960668 | 1.675413 |
| VGf | 0.00823554 | 0.009356 |
| VGLL1 | 0 | 0.019707 |
| VGLL3 | 0.00202244 | 0 |
| VGLL4 | 1.39104684 | 1.730505 |
| VHL | 27.733885 | 35.91619 |
| VHLL | 0 | 0 |
| VIL1 | 0.01535817 | 0.026171 |
| VILL | 0.26404255 | 0.214255 |
| VIM | 186.154433 | 335.3744 |
| VIP | 0.69022551 | 0.557922 |
| VIPR1 | 0.03014384 | 0.051366 |
| VIPR2 | 0.00533097 | 0 |
| VIT | 0 | 0 |
| VKORC1 | 21.3624104 | 20.41483 |
| VKORC1L1 | 7.35703117 | 11.4215 |
| VKORC1P1 | 0 | 0 |
| VKORC1P2 | 0 | 0 |
| VLDLR | 10.1599303 | 10.09008 |
| VMA21 | 2.92417146 | 3.31681 |
| VMAC | 2.3795135 | 2.202579 |
| VMO1 | 0.41841455 | 0.445618 |
| VN1R1 | 0.17614519 | 0.163721 |
| VN1R2 | 0 | 0 |
| VN1R3 | 0 | 0 |
| VN1R4 | 0 | 0 |

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|---------|------------|----------|
| VN1R5 | 0 | 0 |
| VN1R7P | 0 | 0 |
| VN1R8P | 0 | 0 |
| VN1R9P | 0 | 0 |
| VN2R10P | 0 | 0 |
| VN2R11P | 0 | 0 |
| VN2R12P | 0 | 0 |
| VN2R13P | 0 | 0 |
| VN2R14P | 0 | 0 |
| VN2R15P | 0 | 0 |
| VN2R16P | 0 | 0 |
| VN2R17P | 0 | 0 |
| VN2R18P | 0 | 0 |
| VN2R19P | 0 | 0 |
| VN2R1P | 0 | 0 |
| VN2R20P | 0 | 0 |
| VN2R21P | 0 | 0 |
| VN2R2P | 0 | 0 |
| VN2R3P | 0 | 0 |
| VN2R4P | 0 | 0 |
| VN2R5P | 0 | 0 |
| VN2R6P | 0 | 0 |
| VN2R7P | 0 | 0 |
| VN2R9P | 0 | 0 |
| VNN1 | 0.00546965 | 0 |
| VNN2 | 0.05051737 | 0.045911 |
| VNN3 | 0 | 0 |
| VPRBP | 3.49399491 | 3.239354 |
| VPREB1 | 0 | 0 |
| VPREB3 | 0.07188147 | 0.040829 |
| VPS11 | 24.248954 | 20.19337 |
| VPS13A | 9.20995287 | 8.621544 |
| VPS13B | 5.62958466 | 5.405646 |
| VPS13C | 8.17806267 | 7.422849 |
| VPS13D | 5.37060784 | 5.037682 |
| VPS16A | 13.9846361 | 12.77536 |
| VPS18 | 16.8364589 | 17.29907 |
| VPS24 | 30.0267179 | 26.6712 |
| VPS25 | 20.2423713 | 16.92133 |
| VPS26A | 10.4971027 | 10.22764 |
| VPS26B | 28.2400739 | 24.90067 |
| VPS28 | 89.9020978 | 90.3226 |
| VPS29 | 38.8233405 | 33.92944 |
| VPS33A | 13.7234104 | 12.86474 |
| VPS33B | 10.3493387 | 9.901595 |
| VPS35 | 67.1274494 | 76.03245 |
| VPS36 | 7.52975904 | 8.867138 |

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| VPS37A | 4.97546 | 4.876001 |
| VPS37B | 19.0444067 | 24.99726 |
| VPS37C | 3.88953002 | 3.389343 |
| VPS37D | 0.03929968 | 0 |
| VPS39 | 28.3659215 | 24.76993 |
| VPS41 | 9.22382214 | 7.925913 |
| VPS45 | 0.31347671 | 0.330678 |
| VPS4A | 26.8710687 | 24.26929 |
| VPS4B | 19.1653978 | 18.33076 |
| VPS52 | 11.0363394 | 9.324177 |
| VPS53 | 6.43394924 | 4.361188 |
| VPS54 | 5.85908697 | 5.932406 |
| VPS72 | 20.1201619 | 18.74368 |
| VPS8 | 27.4283295 | 24.49561 |
| VRK1 | 6.22241151 | 5.525974 |
| VRK2 | 8.89314674 | 7.262364 |
| VRK3 | 16.3496978 | 15.00212 |
| VSIG1 | 0.02016496 | 0.03818 |
| VSIG2 | 0.05626761 | 0 |
| VSIG4 | 0.21570264 | 0.283732 |
| VSIG8 | 0.85581655 | 1.405779 |
| VSNL1 | 0.03145935 | 0 |
| VSTM1 | 241.842688 | 230.2356 |
| VSTM2A | 0 | 0.018573 |
| VSTM2B | 0 | 0 |
| VSTM2L | 0.1497226 | 0.170087 |
| VSX1 | 0.00950512 | 0.010798 |
| VSX2 | 0 | 0 |
| VTA1 | 8.54883216 | 8.018152 |
| VTCN1 | 0 | 0 |
| VTI1A | 5.64538037 | 5.085989 |
| VTI1B | 27.2176148 | 22.07264 |
| VTN | 0.03758998 | 0 |
| VTRNA1-1 | 0 | 0 |
| VTRNA1-2 | 0 | 0 |
| VTRNA1-3 | 0 | 0 |
| VTRNA3P | 0 | 0 |
| VWA1 | 0.00828748 | 0.028244 |
| VWA2 | 0 | 0 |
| VWA3A | 0.00914145 | 0.025962 |
| VWA3B | 0.00442918 | 0.005032 |
| VWA5A | 0.10364965 | 0.076536 |
| VWA5B1 | 0.0046984 | 0.010675 |
| VWA5B2 | 0.01046036 | 0.005942 |
| VWC2 | 0 | 0.025262 |
| VWC2L | 0 | 0 |
| VWCE | 0.02973039 | 0.01351 |

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|---------------|------------|----------|
| VWDE | 0.02636169 | 0.008556 |
| VWF | 0.35942771 | 0.335306 |
| VWFP | 0 | 0 |
| WAC | 83.4679196 | 87.4786 |
| WAPAL | 20.7083829 | 20.52709 |
| WARS | 42.9644987 | 30.96695 |
| WARS2 | 0.13349416 | 0.151651 |
| WAS | 163.127172 | 156.7208 |
| WASF1 | 0.00652961 | 0.007418 |
| WASF2 | 45.7928754 | 40.02294 |
| WASF3 | 0.03565126 | 0.0405 |
| WASF4 | 0 | 0 |
| WASF5P | 0 | 0 |
| WASH1 | 0.21527643 | 0.163038 |
| WASH2P | 0 | 0 |
| WASH3P | 0 | 0 |
| WASH4P | 0 | 0 |
| WASH5P | 0 | 0 |
| WASH6P (NC_00 | 0 | 0 |
| WASH6P (NC_00 | 0 | 0 |
| WASL | 2.75773224 | 2.884362 |
| WBP1 | 22.1803706 | 19.84617 |
| WBP11 | 20.7422674 | 19.19562 |
| WBP11P1 | 0 | 0 |
| WBP2 | 166.331566 | 166.8763 |
| WBP2NL | 0 | 0.010304 |
| WBP2P1 | 0 | 0 |
| WBP4 | 3.20832311 | 4.125889 |
| WBP5 | 0.01930701 | 0.021933 |
| WBSCR16 | 1.83905334 | 1.69747 |
| WBSCR17 | 0.01293867 | 0.007349 |
| WBSCR22 | 8.9400391 | 8.311241 |
| WBSCR26 | 0 | 0 |
| WBSCR27 | 0.0677508 | 0.025655 |
| WBSCR28 | 0 | 0 |
| WDFY1 | 5.25747369 | 5.801484 |
| WDFY2 | 11.2716529 | 11.55691 |
| WDFY3 | 0.00530507 | 0.003013 |
| WDFY4 | 0.06929351 | 0.078719 |
| WDHD1 | 0.20430191 | 0.292635 |
| WDR1 | 170.457034 | 167.0666 |
| WDR12 | 1.23461628 | 1.182742 |
| WDR13 | 8.9678654 | 7.304559 |
| WDR16 | 0 | 0 |
| WDR17 | 0.0199942 | 0.012979 |
| WDR18 | 0.59646329 | 0.908589 |
| WDR19 | 1.64202253 | 1.580011 |

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|--------|------------|----------|
| WDR20 | 7.95048492 | 6.559995 |
| WDR21A | 0.1509597 | 0.200075 |
| WDR21B | 0.10133751 | 0.050053 |
| WDR21C | 0 | 0 |
| WDR22 | 21.063974 | 22.13314 |
| WDR23 | 24.5369405 | 20.81345 |
| WDR24 | 3.27503575 | 2.980922 |
| WDR25 | 1.55276895 | 1.013091 |
| WDR26 | 45.9927125 | 42.72769 |
| WDR27 | 0.33970529 | 0.261868 |
| WDR3 | 0.81888702 | 0.837858 |
| WDR31 | 0.00856429 | 0.009729 |
| WDR32 | 3.59143998 | 3.370773 |
| WDR33 | 8.50724186 | 8.055773 |
| WDR34 | 0.39321301 | 0.289039 |
| WDR35 | 1.14975187 | 1.075844 |
| WDR36 | 1.56605545 | 1.456586 |
| WDR37 | 15.2206798 | 13.9809 |
| WDR38 | 0 | 0 |
| WDR4 | 0.62451478 | 0.873971 |
| WDR40A | 19.6155865 | 17.26343 |
| WDR40B | 0.00622235 | 0.014137 |
| WDR40C | 0 | 0 |
| WDR41 | 8.06327196 | 7.563307 |
| WDR42A | 31.8607057 | 29.34066 |
| WDR42B | 0.01216392 | 0 |
| WDR42C | 0 | 0.023731 |
| WDR43 | 5.92744977 | 4.741546 |
| WDR44 | 5.76787635 | 4.833548 |
| WDR45 | 23.9381085 | 22.99961 |
| WDR45L | 26.6169149 | 24.93764 |
| WDR45p | 0 | 0 |
| WDR46 | 9.58220462 | 8.888297 |
| WDR47 | 6.41906814 | 6.484349 |
| WDR48 | 15.6266273 | 13.43052 |
| WDR49 | 0.00810537 | 0 |
| WDR5 | 2.71486366 | 2.378756 |
| WDR51A | 0.0111304 | 0.037933 |
| WDR51B | 4.43011013 | 4.027748 |
| WDR52 | 0.3224744 | 0.329702 |
| WDR53 | 6.93260435 | 5.686207 |
| WDR54 | 0.22547272 | 0.192105 |
| WDR55 | 22.6959483 | 22.65382 |
| WDR59 | 6.06135667 | 5.470818 |
| WDR5B | 2.54837265 | 2.295437 |
| WDR6 | 19.3172388 | 15.62991 |
| WDR60 | 1.0256259 | 0.937168 |

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| WDR61 | 5.64912335 | 5.093886 |
| WDR62 | 0.26586298 | 0.211417 |
| WDR63 | 0.00699213 | 0 |
| WDR64 | 0.00841687 | 0 |
| WDR65 | 0 | 0 |
| WDR66 | 0.13438294 | 0.178105 |
| WDR67 | 0.43790276 | 0.299842 |
| WDR68 | 22.9283005 | 22.03536 |
| WDR69 | 0.01259756 | 0.028622 |
| WDR7 | 2.62455724 | 2.450175 |
| WDR70 | 3.40844197 | 3.05036 |
| WDR72 | 0.00287664 | 0 |
| WDR73 | 4.03505004 | 4.171847 |
| WDR74 | 4.75261687 | 4.75256 |
| WDR75 | 5.69272237 | 4.618026 |
| WDR76 | 0.64142254 | 0.586718 |
| WDR77 | 3.36160815 | 3.322887 |
| WDR78 | 0.01063228 | 0.006039 |
| WDR8 | 19.9486954 | 20.37053 |
| WDR81 | 12.2420549 | 11.99998 |
| WDR82 | 44.602898 | 46.72956 |
| WDR82P1 | 0 | 0 |
| WDR82P2 | 0 | 0 |
| WDR85 | 6.87563611 | 5.508964 |
| WDR86 | 0 | 0.023405 |
| WDR87 | 0.00234999 | 0 |
| WDR88 | 0.17073935 | 0.207817 |
| WDR89 | 0.45054281 | 0.39314 |
| WDR90 | 0.3263271 | 0.344849 |
| WDR91 | 30.5798167 | 28.1564 |
| WDR92 | 0.26234816 | 0.10644 |
| WDR93 | 0.00872783 | 0 |
| WDSOF1 | 2.10156015 | 2.265825 |
| WDSUB1 | 1.63224306 | 1.01984 |
| WDTC1 | 39.4629962 | 41.0802 |
| WDYHV1 | 0.48352022 | 0.301222 |
| WEE1 | 22.8432326 | 33.00134 |
| WEE2 | 0.00686878 | 0.007803 |
| WFDC1 | 0 | 0 |
| WFDC10A | 0 | 0 |
| WFDC10B | 0 | 0 |
| WFDC11 | 0 | 0 |
| WFDC12 | 0.05432902 | 0 |
| WFDC13 | 0 | 0 |
| WFDC2 | 0 | 0 |
| WFDC3 | 0 | 0 |
| WFDC5 | 0 | 0.023696 |

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| WFDC6 | 0 | 0 |
| WFDC8 | 0.01374205 | 0.015611 |
| WFDC9 | 0 | 0 |
| WFIKKN1 | 1.51106075 | 1.851464 |
| WFIKKN2 | 0.01120156 | 0 |
| WFS1 | 0.01732857 | 0.026247 |
| WHAMM | 6.58737781 | 5.863371 |
| WHAMML1 | 0 | 0 |
| WHAMML2 | 0 | 0 |
| WHSC1 | 3.86476043 | 4.632399 |
| WHSC1L1 | 16.7385841 | 16.07919 |
| WHSC1L2P | 0 | 0 |
| WHSC2 | 7.67428848 | 7.49622 |
| WIBG | 6.49214765 | 5.241247 |
| WIF1 | 0 | 0 |
| WIPF1 | 163.873509 | 166.1158 |
| WIPF2 | 13.9280925 | 13.47509 |
| WIPF3 | 0.00665991 | 0 |
| WIP11 | 95.6958541 | 103.6594 |
| WIP12 | 22.8293972 | 22.03659 |
| WISP1 | 0 | 0 |
| WISP2 | 0.04492592 | 0 |
| WISP3 | 0.01493276 | 0 |
| WIT1 | 0 | 0 |
| WIZ | 5.09995432 | 8.647464 |
| WNK1 | 26.302045 | 27.73785 |
| WNK2 | 0.03076578 | 0.045436 |
| WNK3 | 0.00271505 | 0 |
| WNK4 | 0.02035859 | 0.023128 |
| WNT1 | 0.09205486 | 0.198694 |
| WNT10A | 0.04426385 | 0.020114 |
| WNT10B | 0.21293818 | 0.525872 |
| WNT11 | 0.02182183 | 0.012395 |
| WNT16 | 0.00651342 | 0 |
| WNT2 | 0 | 0.008216 |
| WNT2B | 0 | 0.018778 |
| WNT3 | 0 | 0 |
| WNT3A | 0 | 0.008146 |
| WNT4 | 0.01076842 | 0.012233 |
| WNT5A | 0.01080438 | 0.020457 |
| WNT5B | 0.8006184 | 1.271254 |
| WNT6 | 0 | 0 |
| WNT7A | 0.02453364 | 0 |
| WNT7B | 0 | 0 |
| WNT8A | 0 | 0 |
| WNT8B | 0.0316012 | 0.023933 |
| WNT9A | 0.03391182 | 0.038524 |

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|--------|------------|----------|
| WNT9B | 0 | 0 |
| WRAP53 | 5.41994503 | 4.418902 |
| WRB | 4.69160278 | 6.058588 |
| WRN | 1.61367403 | 1.255361 |
| WRNIP1 | 10.0290512 | 10.01517 |
| WSB1 | 129.923479 | 106.3022 |
| WSB2 | 15.839778 | 13.77076 |
| WSCD1 | 0.00722396 | 0.008207 |
| WSCD2 | 0.00907046 | 0 |
| WT1 | 0.00694134 | 0 |
| WTAP | 36.4826889 | 32.78847 |
| WTIP | 0 | 0.010837 |
| WWC1 | 0.01013269 | 0 |
| WWC2 | 0.01432081 | 0.03796 |
| WWC3 | 6.15709258 | 5.540132 |
| WWOX | 0.23820239 | 0.162361 |
| WWP1 | 12.3040155 | 11.74487 |
| WWP2 | 23.1077844 | 21.78799 |
| WWTR1 | 0.01052846 | 0 |
| XAB2 | 25.8084948 | 26.59299 |
| XAF1 | 7.54383772 | 6.508132 |
| XAGE1A | 0 | 0 |
| XAGE1B | 0 | 0 |
| XAGE1C | 0 | 0 |
| XAGE1D | 0 | 0 |
| XAGE1E | 0 | 0 |
| XAGE2 | 0 | 0 |
| XAGE2B | 0 | 0 |
| XAGE3 | 0 | 0 |
| XAGE-4 | 0 | 0 |
| XAGE5 | 0 | 0 |
| XBP1 | 4.49387568 | 4.868888 |
| XBPP1 | 0 | 0 |
| XCL1 | 0.03441134 | 0 |
| XCL2 | 0.03721298 | 0.042275 |
| XCR1 | 0.03062685 | 0 |
| XDH | 0.00367769 | 0.004178 |
| XG | 0 | 0.008141 |
| XGPY | 0 | 0 |
| XGPY2 | 0 | 0 |
| XIAP | 6.1928884 | 6.004636 |
| XIRP1 | 0 | 0.011108 |
| XIRP2 | 0.00166815 | 0 |
| XIST | 0 | 0 |
| XK | 2.98117279 | 1.432637 |
| XKR3 | 0 | 0 |
| XKR4 | 0 | 0.006104 |

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| XKR5 | 0 | 0.005013 |
| XKR6 | 0.06708428 | 0.038104 |
| XKR7 | 0.0072252 | 0.008208 |
| XKR8 | 9.06096283 | 10.7804 |
| XKR9 | 0.00662424 | 0.007525 |
| XKRX | 0 | 0.008393 |
| XKRY | 0 | 0 |
| XKRY2 | 0 | 0 |
| XKRYP1 | 0 | 0 |
| XKRYP2 | 0 | 0 |
| XKRYP3 | 0 | 0 |
| XKRYP4 | 0 | 0 |
| XKRYP5 | 0 | 0 |
| XKRYP6 | 0 | 0 |
| XPA | 5.58194627 | 5.105462 |
| XPC | 20.1212587 | 19.86681 |
| XPNPEP1 | 3.73783662 | 2.909462 |
| XPNPEP2 | 0 | 0.014332 |
| XPNPEP3 | 1.28488134 | 0.897643 |
| XPO1 | 11.0306809 | 9.707344 |
| XPO4 | 3.07988662 | 2.952717 |
| XPO5 | 2.70068103 | 2.328843 |
| XPO6 | 135.304804 | 119.6308 |
| XPO7 | 17.4604239 | 16.68976 |
| XPOT | 15.0460486 | 18.30904 |
| XPOTP1 | 0 | 0 |
| XPR1 | 2.31882475 | 2.271559 |
| XRCC1 | 20.3651636 | 20.48756 |
| XRCC2 | 0.1094713 | 0.038863 |
| XRCC3 | 0.43022655 | 0.398236 |
| XRCC4 | 1.20920331 | 0.981196 |
| XRCC5 | 42.1242199 | 40.24954 |
| XRCC6 | 63.4209936 | 58.24025 |
| XRCC6BP1 | 16.3852579 | 17.58438 |
| XRN1 | 28.7171187 | 29.39014 |
| XRN2 | 31.1982859 | 24.51092 |
| XRR1 | 1.23183803 | 1.179688 |
| XYLB | 0.0113835 | 0.025864 |
| XYLT1 | 22.047771 | 18.72996 |
| XYLT2 | 2.33418308 | 1.901702 |
| YAF2 | 5.65671746 | 6.606892 |
| YAP1 | 0.05471276 | 0.053275 |
| YARS | 8.33728234 | 7.931052 |
| YARS2 | 1.8140258 | 1.479803 |
| YBX1 | 183.869647 | 171.4444 |
| YBX1P1 | 0 | 0 |
| YBX1P2 | 0 | 0 |

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| YBX2 | 0.02656391 | 0 |
| YDD19 | 0 | 0 |
| YDJC | 5.79846571 | 5.801689 |
| YEATS2 | 2.28979147 | 1.803967 |
| YEATS4 | 2.21638868 | 1.310663 |
| YES1 | 4.47882184 | 4.338576 |
| YESP | 0 | 0 |
| YIF1A | 0.86277005 | 0.894893 |
| YIF1B | 9.30857164 | 9.492414 |
| YIPF1 | 10.3145332 | 8.950296 |
| YIPF2 | 3.94224956 | 4.621388 |
| YIPF3 | 44.9942083 | 39.74174 |
| YIPF4 | 8.07843505 | 8.71533 |
| YIPF5 | 3.95519994 | 3.565458 |
| YIPF6 | 5.52927464 | 4.500963 |
| YIPF7 | 0 | 0 |
| YJEFN3 | 1.19900054 | 0.948594 |
| YKT6 | 32.0168814 | 30.41336 |
| YLPM1 | 8.08249173 | 8.095752 |
| YME1L1 | 29.8541948 | 28.54113 |
| YME1L2 | 0 | 0 |
| YOD1 | 9.01421212 | 7.838433 |
| YPEL1 | 4.19034601 | 3.389066 |
| YPEL2 | 4.99512354 | 3.916939 |
| YPEL3 | 360.825614 | 380.4493 |
| YPEL4 | 1.50180935 | 1.192868 |
| YPEL5 | 91.61324 | 101.3086 |
| YRDC | 3.52712524 | 3.668628 |
| YSK4 | 0.0100962 | 0.011469 |
| YTHDC1 | 33.1008491 | 30.22237 |
| YTHDC2 | 7.37860008 | 6.717924 |
| YTHDF1 | 21.9108122 | 22.46801 |
| YTHDF1P | 0 | 0 |
| YTHDF2 | 18.7578933 | 18.8505 |
| YTHDF2P | 0 | 0 |
| YTHDF3 | 14.6708274 | 14.17353 |
| YWHAB | 61.518561 | 68.43988 |
| YWHAE | 21.1519203 | 19.87157 |
| YWHAG | 5.7627475 | 7.088402 |
| YWHAH | 16.3230679 | 30.47916 |
| YWHAQ | 29.8781019 | 28.56068 |
| YWHAQP | 0 | 0 |
| YWHAQP2 | 0 | 0 |
| YWHAZ | 164.090874 | 182.9229 |
| YWHAZP1 | 0 | 0 |
| YWHAZP3 | 0 | 0 |
| YWHAZP4 | 0 | 0 |

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| YWHAZP5 | 0 | 0 |
| YY1 | 35.0503299 | 35.92903 |
| YY1AP1 | 44.9429562 | 43.65034 |
| YY2 | 0 | 0 |
| ZACN | 0.0856429 | 0.032431 |
| ZADH2 | 5.91158077 | 6.028871 |
| ZAK | 0.09170192 | 0.058144 |
| ZAN | 0.00481515 | 0.00547 |
| ZAP70 | 0.2066981 | 0.272382 |
| ZAR1 | 0.01462123 | 0.01661 |
| ZBBX | 0 | 0 |
| ZBED1 (NC_0000 | 0.23791699 | 0.408066 |
| ZBED1 (NC_0000 | 1.32656129 | 2.782144 |
| ZBED1P | 0 | 0 |
| ZBED2 | 0 | 0 |
| ZBED3 | 0.07408503 | 0.050497 |
| ZBED4 | 6.03646229 | 6.46556 |
| ZBED5 | 11.7284681 | 9.977545 |
| ZBP1 | 11.0059705 | 11.77389 |
| ZBTB1 | 18.5288511 | 22.44813 |
| ZBTB10 | 0.99212088 | 1.166473 |
| ZBTB11 | 15.8583323 | 13.77395 |
| ZBTB12 | 0.19165181 | 0.153684 |
| ZBTB16 | 1.55133316 | 2.234922 |
| ZBTB17 | 13.0768234 | 13.43158 |
| ZBTB2 | 12.2091358 | 18.08024 |
| ZBTB20 | 0.29073813 | 0.306116 |
| ZBTB22 | 6.01714309 | 4.568716 |
| ZBTB24 | 3.15549009 | 3.840736 |
| ZBTB25 | 2.26652268 | 2.165866 |
| ZBTB26 | 4.0839779 | 3.576514 |
| ZBTB3 | 2.40370293 | 1.654449 |
| ZBTB32 | 2.39216776 | 2.291021 |
| ZBTB33 | 8.92032663 | 8.780953 |
| ZBTB34 | 20.4263461 | 19.04914 |
| ZBTB37 | 4.13076549 | 3.356174 |
| ZBTB38 | 9.29667627 | 8.709834 |
| ZBTB39 | 2.37514679 | 2.512388 |
| ZBTB4 | 31.4743459 | 47.44581 |
| ZBTB40 | 8.52751135 | 7.132064 |
| ZBTB41 | 2.88310533 | 2.463487 |
| ZBTB42 | 16.2271389 | 18.62474 |
| ZBTB43 | 5.54316978 | 5.093677 |
| ZBTB44 | 19.3036035 | 19.15513 |
| ZBTB45 | 4.40709531 | 4.437837 |
| ZBTB46 | 0.12492198 | 0.218328 |
| ZBTB47 | 0.28534378 | 0.398085 |

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| ZBTB48 | 41.1513749 | 36.18523 |
| ZBTB5 | 3.13345255 | 3.020311 |
| ZBTB6 | 4.90044855 | 4.496637 |
| ZBTB7A | 25.6081998 | 29.41402 |
| ZBTB7B | 50.6968641 | 54.92386 |
| ZBTB7C | 0.0055711 | 0.006329 |
| ZBTB8A | 0.01720333 | 0.032572 |
| ZBTB8B | 0.01569445 | 0.017829 |
| ZBTB8OS | 5.83548237 | 4.197383 |
| ZBTB9 | 1.7133474 | 0.827876 |
| ZC3H10 | 3.29109377 | 3.085582 |
| ZC3H11A | 46.2354861 | 41.84143 |
| ZC3H11B | 0 | 0 |
| ZC3H12A | 8.95666713 | 15.02933 |
| ZC3H12B | 0.0176067 | 0.040003 |
| ZC3H12C | 0.77111183 | 0.545124 |
| ZC3H12D | 0.176387 | 0.19036 |
| ZC3H13 | 16.8163281 | 16.07745 |
| ZC3H14 | 5.66817787 | 5.054845 |
| ZC3H15 | 15.4882007 | 15.42347 |
| ZC3H18 | 14.8063216 | 14.33777 |
| ZC3H3 | 15.732106 | 17.28882 |
| ZC3H4 | 6.37047943 | 6.034708 |
| ZC3H6 | 1.22081391 | 1.034973 |
| ZC3H7A | 15.6281914 | 15.69149 |
| ZC3H7B | 2.24657166 | 2.141031 |
| ZC3H8 | 2.4643156 | 2.665483 |
| ZC3HAV1 | 13.3302041 | 9.955923 |
| ZC3HAV1L | 6.71659175 | 5.42286 |
| ZC3HC1 | 3.63604208 | 3.394331 |
| ZC4H2 | 0.09752009 | 0.066471 |
| ZCCHC10 | 5.13247947 | 4.952615 |
| ZCCHC11 | 42.3643114 | 53.44662 |
| ZCCHC12 | 0.10527021 | 0.054358 |
| ZCCHC13 | 0 | 0 |
| ZCCHC14 | 2.97536879 | 3.300576 |
| ZCCHC16 | 0 | 0 |
| ZCCHC17 | 17.9410908 | 17.3249 |
| ZCCHC18 | 0 | 0 |
| ZCCHC2 | 8.06799187 | 8.868042 |
| ZCCHC24 | 8.78008956 | 12.4098 |
| ZCCHC3 | 18.9144152 | 17.79047 |
| ZCCHC4 | 0.83439819 | 0.478215 |
| ZCCHC5 | 0.01588016 | 0 |
| ZCCHC6 | 24.986895 | 23.8978 |
| ZCCHC7 | 2.29353015 | 2.214219 |
| ZCCHC8 | 12.6563096 | 11.60896 |

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| ZCCHC9 | 6.75017605 | 6.828127 |
| ZCRB1 | 5.00548823 | 4.209686 |
| ZCWPW1 | 8.50189891 | 7.123629 |
| ZCWPW2 | 0.07599517 | 0.057554 |
| ZDBF2 | 0.02072278 | 0.04002 |
| ZDHHC1 | 0.06279342 | 0.035667 |
| ZDHHC11 | 0.05647633 | 0.082489 |
| ZDHHC11B | 0.01297059 | 0.014735 |
| ZDHHC12 | 23.4344835 | 22.43376 |
| ZDHHC13 | 23.2453433 | 23.8066 |
| ZDHHC14 | 0.11316109 | 0.094272 |
| ZDHHC15 | 0.01179873 | 0 |
| ZDHHC16 | 4.32405745 | 3.741477 |
| ZDHHC17 | 18.4120379 | 14.52331 |
| ZDHHC18 | 200.035642 | 188.9102 |
| ZDHHC19 | 2.83063543 | 3.358564 |
| ZDHHC2 | 28.3307426 | 38.97107 |
| ZDHHC20 | 15.9746338 | 18.55727 |
| ZDHHC21 | 0.13780648 | 0.111822 |
| ZDHHC22 | 0 | 0.007009 |
| ZDHHC23 | 0.3839989 | 0.461517 |
| ZDHHC24 | 2.07539334 | 1.922416 |
| ZDHHC3 | 6.72558671 | 6.375136 |
| ZDHHC4 | 11.8121297 | 12.2378 |
| ZDHHC5 | 25.5531544 | 24.6708 |
| ZDHHC6 | 19.5138325 | 17.57812 |
| ZDHHC7 | 51.6899477 | 43.32003 |
| ZDHHC8 | 5.5256152 | 6.083617 |
| ZDHHC8P | 0 | 0 |
| ZDHHC9 | 0.31198878 | 0.462292 |
| ZEB1 | 6.69997984 | 6.456554 |
| ZEB2 | 32.702709 | 24.85598 |
| ZER1 | 22.8359137 | 21.55513 |
| ZFAND1 | 4.24493575 | 3.716646 |
| ZFAND2A | 19.38117 | 17.82893 |
| ZFAND2B | 21.8578557 | 19.37883 |
| ZFAND3 | 29.198345 | 30.17519 |
| ZFAND5 | 36.7943292 | 33.8698 |
| ZFAND6 | 51.4230979 | 53.09384 |
| ZFAT | 1.10732305 | 1.028936 |
| ZFATAS | 0 | 0 |
| ZFC3H1 | 15.3445556 | 14.15154 |
| ZFHX2 | 0.00911075 | 0.005175 |
| ZFHX3 | 0.43453747 | 0.355362 |
| ZFHX4 | 0.01216832 | 0.001728 |
| ZFP1 | 1.79047831 | 1.619945 |
| ZFP106 | 13.0554039 | 11.01775 |

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| ZFP112 | 0 | 0 |
| ZFP14 | 2.32582739 | 1.983743 |
| ZFP161 | 5.95360137 | 6.262394 |
| ZFP2 | 0.00874234 | 0.019863 |
| ZFP28 | 0.699644 | 0.479222 |
| ZFP3 | 0.48406668 | 0.392108 |
| ZFP30 | 1.38162552 | 1.295007 |
| ZFP36 | 353.309902 | 558.8294 |
| ZFP36L1 | 0.87663524 | 0.798278 |
| ZFP36L2 | 261.48156 | 319.1472 |
| ZFP37 | 0 | 0 |
| ZFP41 | 0.5535294 | 0.374297 |
| ZFP42 | 0 | 0.009027 |
| ZFP57 | 0 | 0 |
| ZFP62 | 2.14416741 | 2.05743 |
| ZFP64 | 0.2826439 | 0.249203 |
| ZFP82 | 0.61886486 | 0.419998 |
| ZFP90 | 3.93745363 | 3.225361 |
| ZFP91 | 47.2818062 | 48.65841 |
| ZFP91-CNTF | 0 | 0 |
| ZFP92 | 0.21848865 | 0.324578 |
| ZFPL1 | 16.8991477 | 14.68262 |
| ZFPM1 | 10.1915443 | 13.92131 |
| ZFPM2 | 0 | 0 |
| ZFR | 14.9473827 | 14.08284 |
| ZFR2 | 0 | 0 |
| ZFX | 10.4891472 | 10.34569 |
| ZFY | 0.08985184 | 0.063796 |
| ZFYVE1 | 10.7055153 | 9.270842 |
| ZFYVE16 | 9.66280437 | 8.742003 |
| ZFYVE19 | 7.07627725 | 5.474766 |
| ZFYVE20 | 5.62942374 | 4.817796 |
| ZFYVE21 | 4.98648486 | 3.834052 |
| ZFYVE26 | 3.1119663 | 2.34037 |
| ZFYVE27 | 22.8476183 | 23.03823 |
| ZFYVE28 | 0.11766 | 0.122041 |
| ZFYVE9 | 0.1858821 | 0.234628 |
| ZG16 | 0 | 0 |
| ZG16B | 0.78718027 | 0.403855 |
| ZGPAT | 17.9397697 | 17.43635 |
| ZHX1 | 3.79000981 | 2.800487 |
| ZHX2 | 27.4404927 | 26.68513 |
| ZHX3 | 0.52189792 | 0.511602 |
| ZIC1 | 0.00401937 | 0.013698 |
| ZIC2 | 0.01567884 | 0 |
| ZIC3 | 0 | 0.006064 |
| ZIC4 | 0 | 0.005844 |

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| ZIC5 | 0.00457371 | 0 |
| ZIK1 | 1.58711392 | 1.329926 |
| ZIM2 | 0.01009377 | 0.0344 |
| ZIM3 | 0.00800355 | 0 |
| ZKSCAN1 | 7.87588845 | 7.282046 |
| ZKSCAN2 | 1.15069872 | 0.931808 |
| ZKSCAN3 | 1.83227285 | 1.498674 |
| ZKSCAN4 | 4.72748036 | 4.743587 |
| ZKSCAN5 | 3.36177379 | 3.177129 |
| ZMAT1 | 1.90615929 | 1.621488 |
| ZMAT2 | 45.5548837 | 45.38487 |
| ZMAT3 | 1.60736192 | 1.678731 |
| ZMAT4 | 0.00851573 | 0 |
| ZMAT5 | 12.2325498 | 13.01773 |
| ZMIZ1 | 102.335337 | 126.0268 |
| ZMIZ2 | 8.30549621 | 8.44151 |
| ZMPSTE24 | 4.98634989 | 4.316586 |
| ZMYM1 | 1.28067963 | 1.065379 |
| ZMYM2 | 17.8173257 | 18.40486 |
| ZMYM3 | 6.17019113 | 5.221794 |
| ZMYM4 | 2.52821037 | 2.025146 |
| ZMYM5 | 5.58494818 | 5.10595 |
| ZMYM6 | 14.617611 | 12.77586 |
| ZMYND10 | 1.41117563 | 1.374101 |
| ZMYND11 | 26.2503042 | 28.23134 |
| ZMYND12 | 0.07554011 | 0.014302 |
| ZMYND15 | 4.49110139 | 4.032036 |
| ZMYND17 | 1.96109154 | 1.98139 |
| ZMYND19 | 1.71885917 | 1.098366 |
| ZMYND8 | 6.11958257 | 4.615803 |
| ZNF10 | 2.38175713 | 2.055041 |
| ZNF100 | 4.92472517 | 4.285427 |
| ZNF101 | 5.27808308 | 4.991164 |
| ZNF107 | 0.92758813 | 0.945344 |
| ZNF108P | 0 | 0 |
| ZNF114 | 0.01906195 | 0.032482 |
| ZNF117 | 4.02514924 | 3.804312 |
| ZNF12 | 7.30467256 | 7.227333 |
| ZNF121 | 2.57800472 | 2.030718 |
| ZNF123P | 0 | 0 |
| ZNF124 | 2.32358795 | 4.309022 |
| ZNF131 | 9.28945264 | 8.752928 |
| ZNF132 | 0.1526088 | 0.165486 |
| ZNF133 | 1.71983179 | 1.645732 |
| ZNF134 | 3.60086851 | 3.782517 |
| ZNF135 | 0.06950523 | 0.110543 |
| ZNF136 | 5.24394825 | 5.024636 |

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| ZNF137 | 0 | 0 |
| ZNF138 | 0.49970518 | 0.449854 |
| ZNF14 | 3.45573276 | 3.176083 |
| ZNF140 | 5.40200874 | 4.882936 |
| ZNF141 | 4.45603847 | 4.276627 |
| ZNF142 | 5.23441027 | 4.800777 |
| ZNF143 | 11.0265229 | 10.41832 |
| ZNF146 | 7.02661437 | 6.155509 |
| ZNF148 | 8.62340411 | 8.46979 |
| ZNF154 | 0.74243069 | 0.834718 |
| ZNF155 | 4.5543085 | 4.37849 |
| ZNF157 | 0.0496173 | 0.084549 |
| ZNF16 | 0.60279045 | 0.46565 |
| ZNF160 | 7.04561944 | 6.395436 |
| ZNF165 | 1.37243147 | 1.069618 |
| ZNF167 | 0.30141948 | 0.258315 |
| ZNF169 | 2.41826782 | 2.310596 |
| ZNF17 | 1.95493182 | 1.748126 |
| ZNF174 | 6.0771957 | 5.198363 |
| ZNF175 | 0.17775709 | 0.13883 |
| ZNF177 | 0.26353276 | 0.286361 |
| ZNF18 | 2.96345467 | 2.494686 |
| ZNF180 | 2.65845254 | 2.423681 |
| ZNF181 | 2.45093658 | 2.128697 |
| ZNF182 | 7.20214436 | 6.721438 |
| ZNF184 | 4.49380865 | 3.772954 |
| ZNF185 | 1.7699896 | 1.318334 |
| ZNF187 | 3.4855625 | 2.721732 |
| ZNF189 | 4.65179084 | 4.229052 |
| ZNF19 | 0.16863189 | 0.130615 |
| ZNF192 | 10.2891586 | 9.693025 |
| ZNF193 | 10.5576188 | 9.556962 |
| ZNF195 | 4.54601751 | 4.598256 |
| ZNF197 | 0.67780776 | 0.479363 |
| ZNF2 | 1.59113489 | 1.354155 |
| ZNF20 | 2.37107534 | 2.48952 |
| ZNF200 | 6.58694075 | 6.470788 |
| ZNF202 | 1.0110825 | 0.700944 |
| ZNF204 | 0 | 0 |
| ZNF205 | 0.17351001 | 0.046379 |
| ZNF207 | 41.6343187 | 38.71177 |
| ZNF208 | 0.03826962 | 0.014492 |
| ZNF211 | 14.2791459 | 11.71435 |
| ZNF212 | 6.69779912 | 6.679223 |
| ZNF213 | 4.18367597 | 4.066615 |
| ZNF214 | 0 | 0 |
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| ZNF217 | 61.4790378 | 51.34769 |
| ZNF219 | 3.50623691 | 5.864831 |
| ZNF22 | 3.29117023 | 2.633431 |
| ZNF221 | 0.18199998 | 0.246137 |
| ZNF222 | 2.24745068 | 2.246205 |
| ZNF223 | 2.35163188 | 2.335081 |
| ZNF224 | 16.6173439 | 15.52629 |
| ZNF225 | 2.37122004 | 1.854135 |
| ZNF226 | 3.61906156 | 3.43097 |
| ZNF227 | 5.94900097 | 6.255811 |
| ZNF229 | 0.13977355 | 0.096233 |
| ZNF23 | 0.95982387 | 0.729373 |
| ZNF230 | 3.08357952 | 3.474093 |
| ZNF232 | 0.55649336 | 0.4023 |
| ZNF233 | 0.05290342 | 0.103027 |
| ZNF234 | 2.13452816 | 1.838115 |
| ZNF235 | 1.27206548 | 1.250412 |
| ZNF236 | 2.37065524 | 2.028647 |
| ZNF238 | 86.8835944 | 71.17577 |
| ZNF239 | 0.01675993 | 0.00952 |
| ZNF24 | 25.8427337 | 26.70848 |
| ZNF248 | 0.64156754 | 0.572303 |
| ZNF25 | 6.37063026 | 5.280808 |
| ZNF250 | 1.14311196 | 0.979575 |
| ZNF251 | 1.72006366 | 1.858702 |
| ZNF252 | 0 | 0 |
| ZNF253 | 1.96802153 | 1.866505 |
| ZNF254 | 2.06771945 | 2.043357 |
| ZNF256 | 0.41860387 | 0.594426 |
| ZNF257 | 0.11939427 | 0.12207 |
| ZNF259 | 10.0869557 | 8.973708 |
| ZNF259P | 0 | 0 |
| ZNF26 | 3.29916929 | 3.19353 |
| ZNF260 | 1.66923421 | 1.714624 |
| ZNF263 | 3.92865283 | 3.205518 |
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| ZNF840 | 0 | 0 |
| ZNF841 | 7.24169681 | 6.747728 |
| ZNF843 | 0.16711639 | 0.13052 |
| ZNF844 | 2.64114955 | 2.38514 |
| ZNF845 | 3.15550664 | 3.030655 |
| ZNF846 | 1.0152879 | 0.739061 |
| ZNF847P | 0 | 0 |
| ZNF849P | 0 | 0 |
| ZNF85 | 0.67353874 | 0.692772 |
| ZNF850P | 0 | 0 |
| ZNF852 | 6.27987826 | 5.305111 |
| ZNF853 | 2.24473908 | 2.757001 |
| ZNF860 | 0.06108069 | 0.00771 |
| ZNF862 | 2.60949446 | 2.237173 |
| ZNF884P | 0 | 0 |
| ZNF885P | 0 | 0 |
| ZNF886P | 0 | 0 |
| ZNF90 | 0.10644319 | 0.04455 |
| ZNF91 | 1.68327335 | 1.54483 |
| ZNF92 | 4.17940908 | 4.210959 |
| ZNF93 | 2.99508974 | 2.498159 |
| ZNF98 | 0.08372919 | 0.031706 |
| ZNF99 | 0.02027515 | 0.007678 |
| ZNFX1 | 20.3293357 | 20.94605 |
| ZNHIT1 | 20.7777661 | 19.92769 |
| ZNHIT2 | 1.23296694 | 1.253231 |
| ZNHIT3 | 11.0531908 | 9.849788 |
| ZNHIT6 | 0.56378256 | 0.418438 |
| ZNRD1 | 16.7664164 | 18.32397 |
| ZNRF1 | 6.07206838 | 7.150582 |
| ZNRF2 | 11.7036958 | 11.71475 |
| ZNRF3 | 3.03438502 | 3.604128 |
| ZNRF4 | 0 | 0.033128 |
| ZP1 | 0.01066193 | 0.012112 |
| ZP2 | 0 | 0 |
| ZP3 | 0.69461068 | 0.515943 |
| ZP4 | 0 | 0 |
| ZPBP | 0.01786349 | 0 |
| ZPBP2 | 0 | 0.010583 |
| ZPLD1 | 0.00580971 | 0 |
| ZRANB1 | 18.0940373 | 19.11485 |
| ZRANB2 | 22.7330086 | 21.91242 |
| ZRANB3 | 0.07959833 | 0.077507 |

| | | |
|-----------|------------|----------|
| ZRF1PS | 0 | 0 |
| ZRSR1 | 0 | 0 |
| ZRSR2 | 12.0561918 | 9.762565 |
| ZSCAN1 | 0.01023629 | 0 |
| ZSCAN10 | 0.1536565 | 0.087278 |
| ZSCAN12 | 2.18029175 | 2.049605 |
| ZSCAN12L1 | 0 | 0 |
| ZSCAN16 | 4.91030457 | 3.200904 |
| ZSCAN18 | 6.68956063 | 6.393689 |
| ZSCAN2 | 1.19299427 | 1.019156 |
| ZSCAN20 | 0.03987735 | 0.039639 |
| ZSCAN21 | 1.61733315 | 1.645178 |
| ZSCAN22 | 0.99171817 | 0.910546 |
| ZSCAN23 | 0.00665148 | 0.015112 |
| ZSCAN29 | 35.8334337 | 30.72647 |
| ZSCAN4 | 0.00936123 | 0 |
| ZSCAN5A | 0.94077964 | 0.89476 |
| ZSCAN5B | 0.02586142 | 0.014689 |
| ZSCAN5C | 0.02820299 | 0 |
| ZSWIM1 | 6.47529787 | 6.59621 |
| ZSWIM2 | 0 | 0 |
| ZSWIM3 | 3.42343285 | 3.07168 |
| ZSWIM4 | 0.39734435 | 0.633046 |
| ZSWIM5 | 0.01800731 | 0.028639 |
| ZSWIM6 | 22.5650744 | 27.0015 |
| ZSWIM7 | 8.07297319 | 5.447898 |
| ZUFSP | 10.9293406 | 9.804321 |
| ZW10 | 4.47626672 | 4.455683 |
| ZWILCH | 3.36880892 | 2.543843 |
| ZWINT | 0.02271781 | 0.103231 |
| ZXDA | 0.52728103 | 0.332778 |
| ZXDB | 0.78630713 | 0.73662 |
| ZXDC | 16.1894589 | 16.41308 |
| ZYG11A | 0.00865953 | 0 |
| ZYG11B | 5.74239667 | 6.250665 |
| ZYX | 213.307727 | 274.9791 |
| ZZEF1 | 26.7655508 | 26.14052 |
| ZZZ3 | 2.58743374 | 2.541557 |