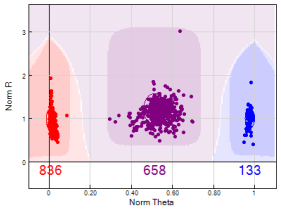
Figure S1

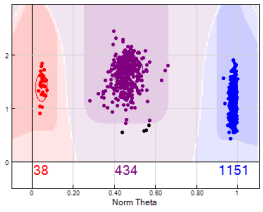
# ABO in 9q32

## Infinium assay

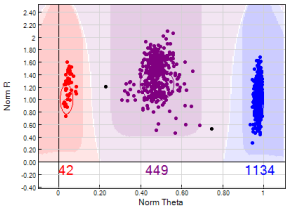
rs4363269



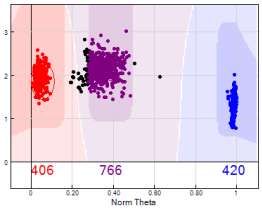

rs8176749



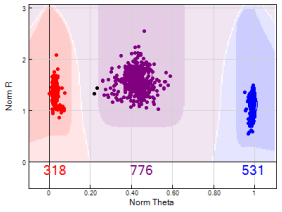

rs8176746




rs2073824

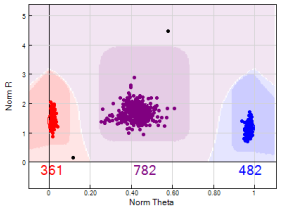



rs657152

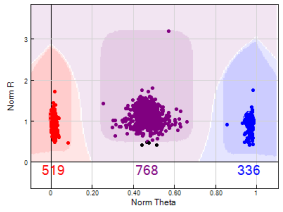



## Infinium assay

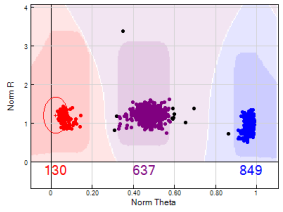
rs500498



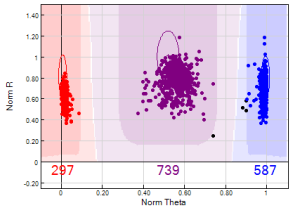

rs505922




rs495828

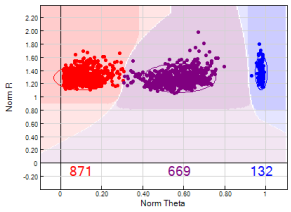



rs7025162

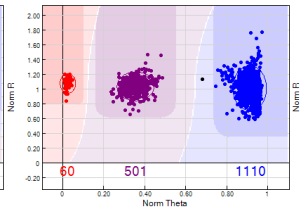



## Golden Gate assay

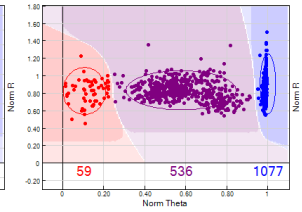
rs4363269



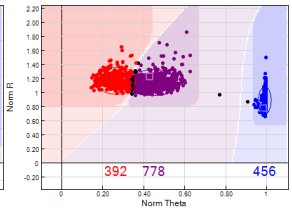

rs8176749



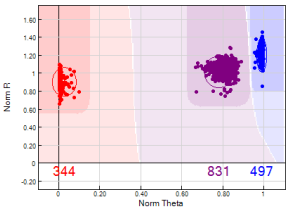

rs8176746




rs2073824

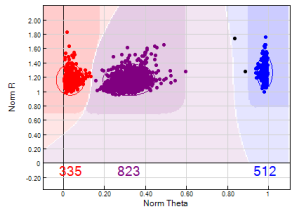



rs657152

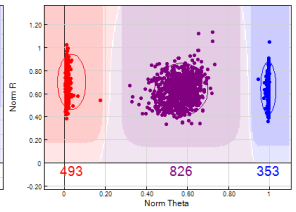



## Golden Gate  assay

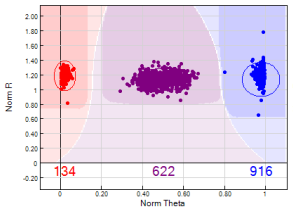
rs500498




rs505922




rs495828




rs7025162

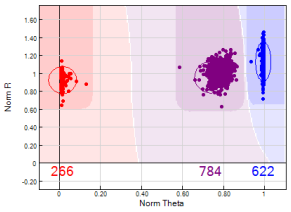
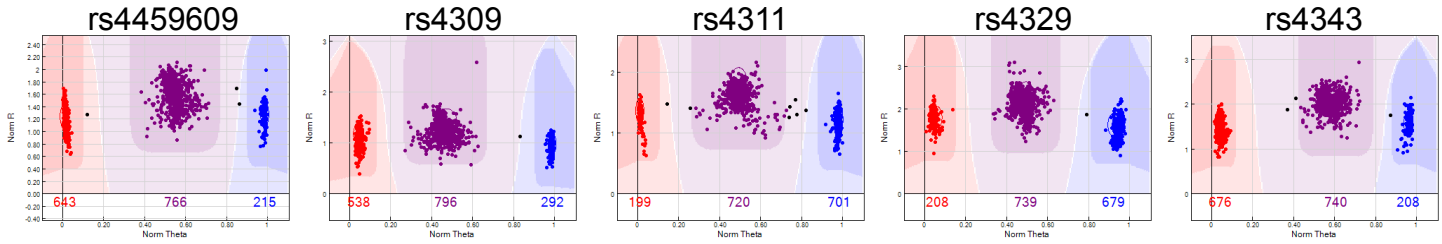


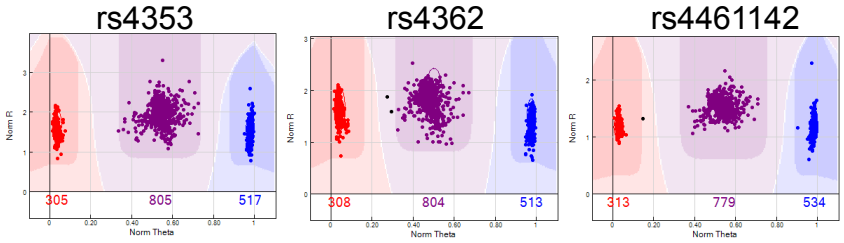
Figure S2

# ACE1 in 17q23.2

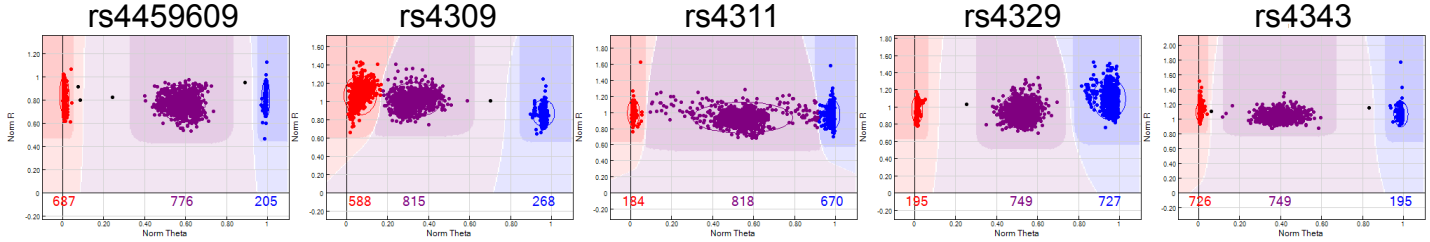
## Infinium assay




## Infinium assay




## Golden Gate assay




## Golden Gate assay

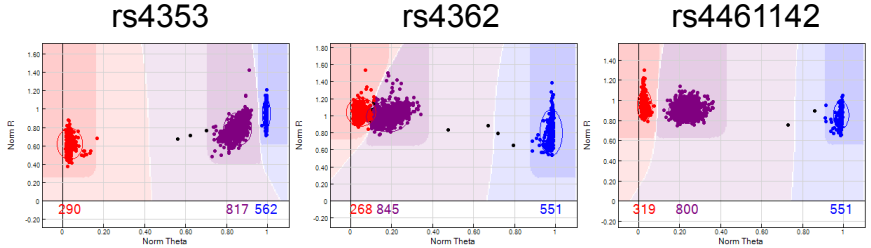


Figure S3

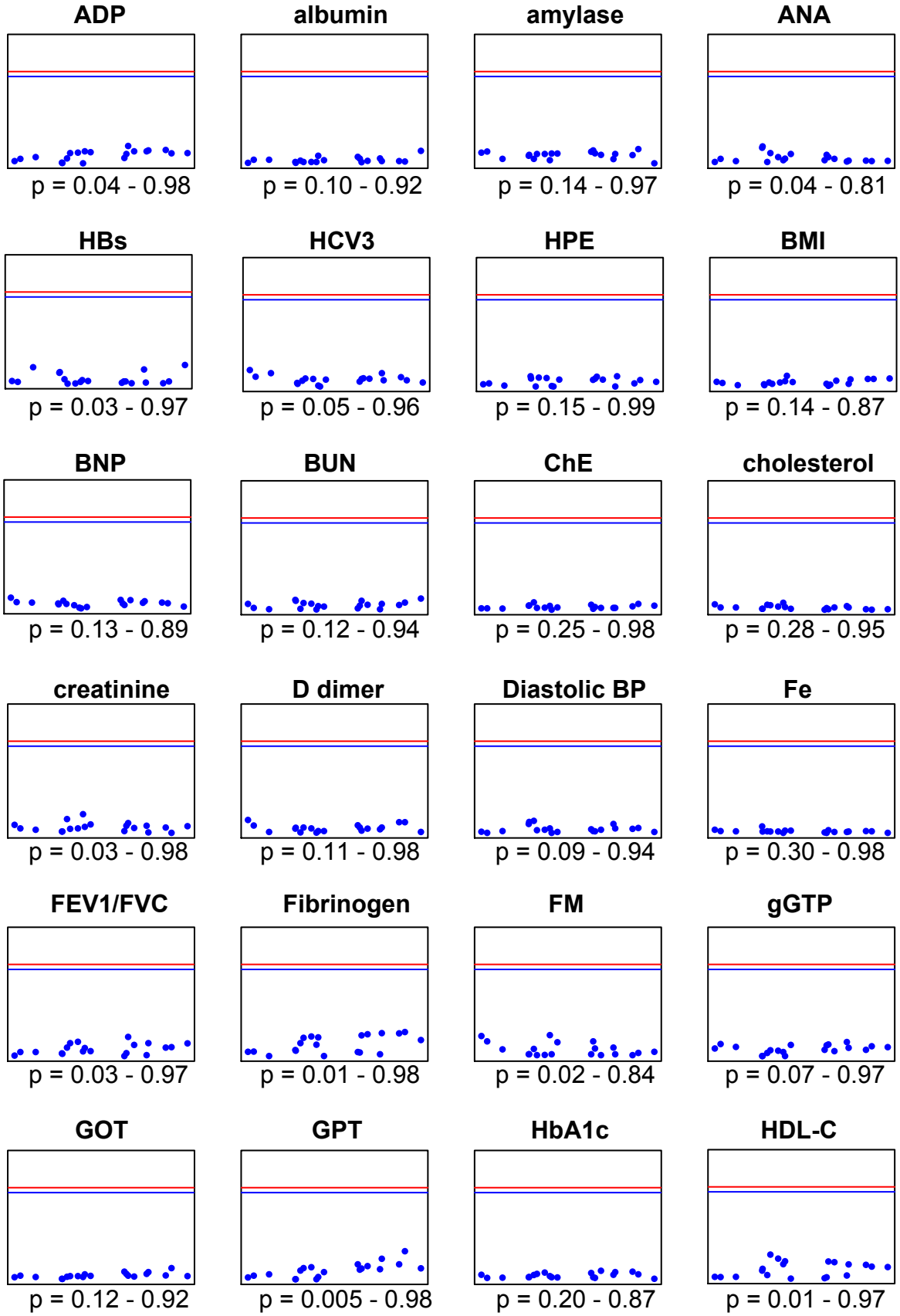
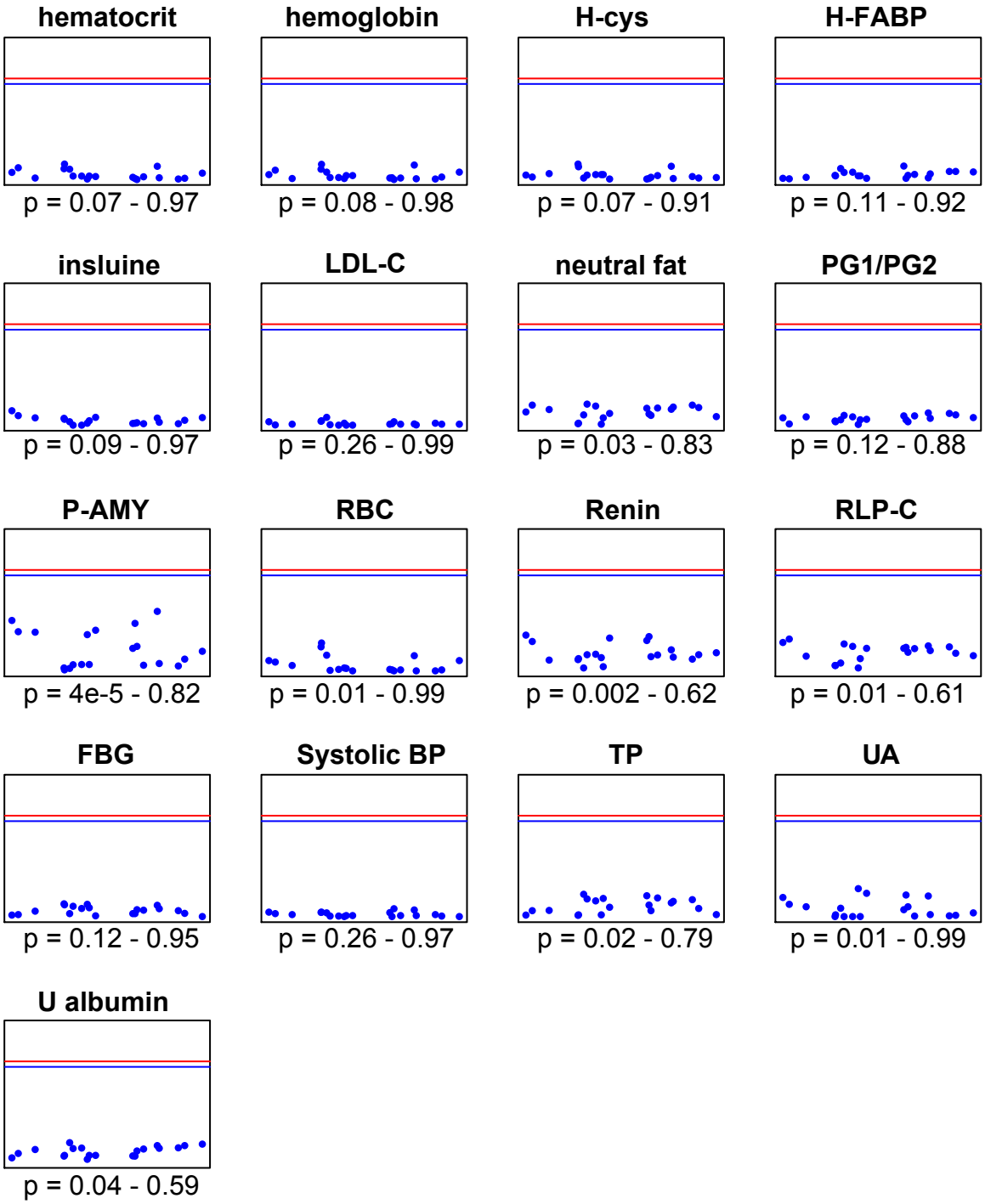
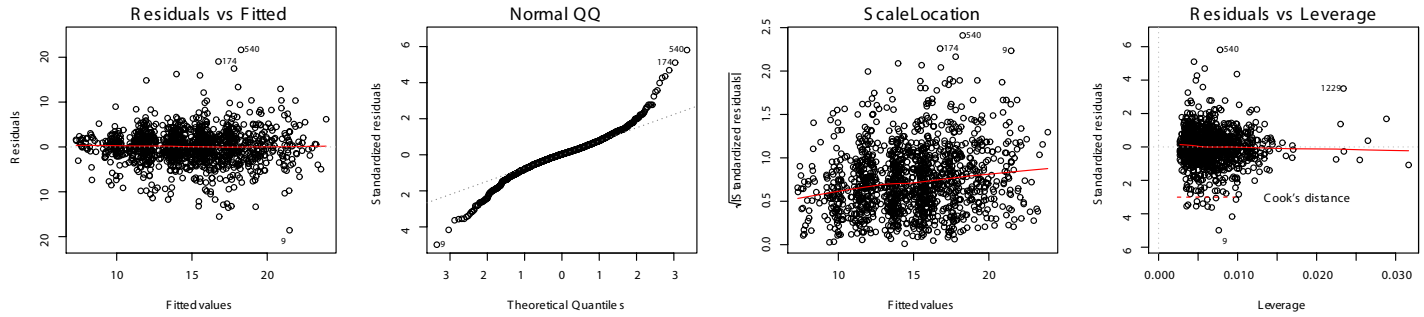

ADP
p = 0.04 - 0.98
albumin
p = 0.10 - 0.92
amylase
p = 0.14 - 0.97
ANA
p = 0.04 - 0.81
HBs
p = 0.03 - 0.97
HCV3
p = 0.05 - 0.96
HPE
p = 0.15 - 0.99
BMI
p = 0.14 - 0.87
BNP
p = 0.13 - 0.89
BUN
p = 0.12 - 0.94
ChE
p = 0.25 - 0.98
cholesterol
p = 0.28 - 0.95
creatinine
p = 0.03 - 0.98
D dimer
p = 0.11 - 0.98
Diastolic BP
p = 0.09 - 0.94
Fe
p = 0.30 - 0.98
FEV1/FVC
p = 0.03 - 0.97
Fibrinogen
p = 0.01 - 0.98
FM
p = 0.02 - 0.84
gGTP
p = 0.07 - 0.97
GOT
p = 0.12 - 0.92
GPT
p = 0.005 - 0.98
HbA1c
p = 0.20 - 0.87
HDL-C
p = 0.01 - 0.97

Figure S3 (continued)

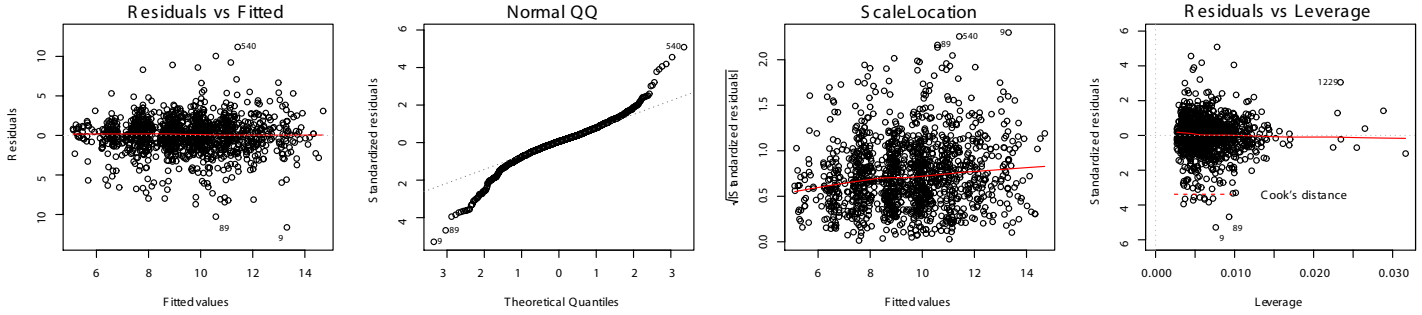


# Figure S4

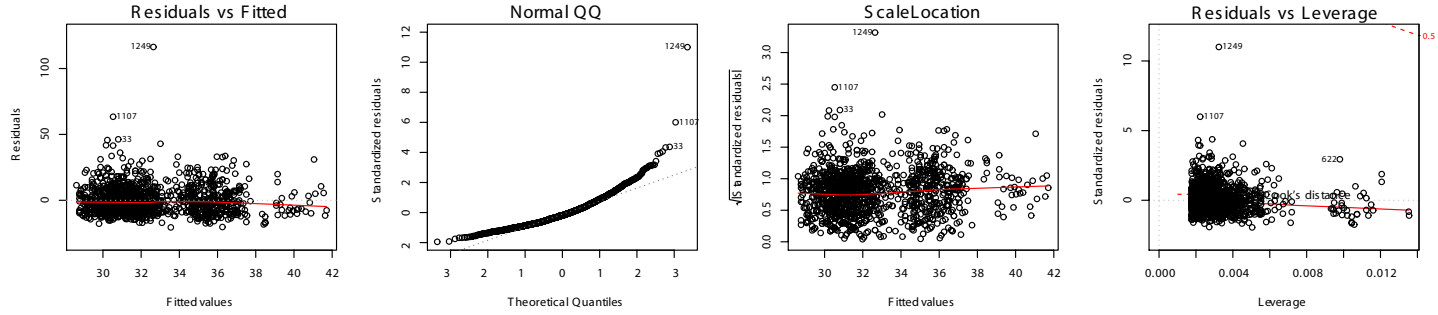
## Untransformed ACE



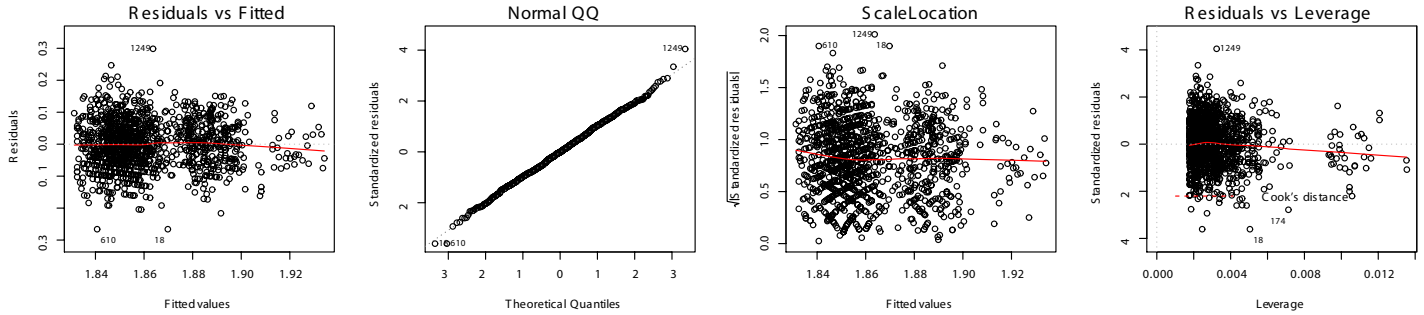

## Box-Cox transformed ACE




## Untransformed P-LIP




## Box-Cox transformed P-LIP



**Methods S1**

**Imputation and test:** We first carried out pre-phasing [1] using SHAPEIT [2] based on 1000 Genome Project for chromosome 9, then applied IMPUTE2 [3] to ABO locus to complete imputation for ABO locus. Subsequently we used SNPTEST [4] to examine quantitative traits association with loci after imputation, in which adjustment by age and sex was incorporated. The above procedures were conducted separately for the first and second stage datasets.

[1] Howie B, Fuchsberger C, Stephens M, Marchini J & Abecasis GR. Fast and accurate genotype imputation in genome-wide association studies through pre-phasing. Nat Genet 44(8): 955-959 (2012).

[2] Delaneau O, Marchini J & Zagury JF A linear complexity phasing method for thousands of genomes. Nat. Methods 9, 179-181 (2011).

[3] Howie BN, Donnelly P & Marchini J. A flexible and accurate genotype imputation method for the next generation of genome-wide association studies. PLoS Genet 5(6): e1000529 (2009).

[4] Marchini J, Howie B, Myers S, McVean G & Donnelly P. A new multipoint method for genome-wide association studies via imputation of genotypes. Nat

Genet 39: 906-913 (2007).

**Regression diagnosis:** We carried out regression diagnosis for each marker being significant in GWAS on both ACE and P-LIP for 1st and 2nd stage samples, utilizing four diagnosis plots implemented in R (fitted values vs residuals, normal QQ plot for standardized residuals, fitted values vs sqrt(standardized residuals), and leverage vs standardized residuals). We performed the diagnosis plots both for untransformed and for optimally Box-Cox transformed traits (lambda = 0.8 for ACE and lambda = -0.4 for P-LIP).

**Table S1. Associations of imputed genotypes in the ABOlocus with P-LIP in Takahata population.**

| | | | | | Allele | | average maximum | | Genotypes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| index | id* | rsid | chr | pos | A | B | posterior call | info | AA | AB | BB | Null | MAF | beta | SE | P-value |
| 1 | --- | rs73562368 | NA | 136123019 | C | T | 0.99972 | 0.0585888 | 1251.6 | 0.351 | 0 | 0 | 0.00014018 | ND | ND | ND |
| 2 | --- | rs11244049 | NA | 136123092 | T | C | 0.99546 | 0.98526 | 907.73 | 314.42 | 29.845 | 0.008 | 0.14941 | 0.34474 | 0.055764 | 6.3238e-10 |
| 3 | --- | rs148031614 | NA | 136123172 | T | C | 0.99928 | 0.25135 | 1251.1 | 0.9 | 0 | 0 | 0.00035942 | ND | ND | ND |
| 4 | --- | rs9328546 | NA | 136123267 | C | G | 0.93562 | 0.84338 | 838.89 | 376.56 | 36.519 | 0.034 | 0.17956 | 0.06006 | 0.058599 | 0.30539 |
| 5 | --- | rs114204311 | NA | 136123277 | G | A | 0.99987 | 0.083469 | 1251.8 | 0.166 | 0 | 0 | 0 | ND | ND | ND |
| 6 | --- | rs192446092 | NA | 136123600 | A | C | 0.9999 | 0.01904 | 1251.9 | 0.131 | 0 | 0 | 0 | ND | ND | ND |
| 7 | --- | rs183830736 | NA | 136123679 | C | T | 0.99982 | 0.10392 | 1251.8 | 0.221 | 0 | 0 | 0 | ND | ND | ND |
| 8 | --- | rs6597618 | NA | 136123740 | T | C | 0.99414 | 0.98988 | 459.62 | 583.73 | 208.63 | 0.01 | 0.39976 | 0.20029 | 0.040161 | 6.1246e-07 |
| 9 | rs4363269 | rs4363269 | NA | 136123840 | A | G | 1 | 1 | 634 | 517 | 101 | 0 | 0.28714 | -0.0030706 | 0.044089 | 0.94448 |
| 10 | --- | rs186098467 | NA | 136123994 | T | C | 1 | 0.0029988 | 1252 | 0.003 | 0 | 0 | 0 | ND | ND | ND |
| 11 | --- | rs7025839 | NA | 136124190 | G | A | 0.99694 | 0.99335 | 703.13 | 474.76 | 74.108 | 0.005 | 0.24879 | 0.033506 | 0.046373 | 0.46998 |
| 12 | --- | rs72775410 | NA | 136124314 | G | A | 0.96768 | 0.3896 | 1204.1 | 47.501 | 0.434 | 0.002 | 0.019317 | -0.02986 | 0.20035 | 0.88152 |
| 13 | --- | rs73562371 | NA | 136124326 | T | C | 0.99955 | 0.72665 | 1250.2 | 1.76 | 0 | 0 | 0.00070288 | -0.96353 | 0.85558 | 0.26009 |
| 14 | --- | rs9411473 | NA | 136124399 | G | A | 0.99562 | 0.98996 | 702.96 | 474.93 | 74.095 | 0.021 | 0.24885 | 0.03319 | 0.046467 | 0.47506 |
| 15 | --- | rs9411370 | NA | 136124432 | A | G | 0.99538 | 0.98938 | 702.97 | 474.94 | 74.071 | 0.015 | 0.24884 | 0.033183 | 0.046484 | 0.47531 |
| 16 | --- | rs78755596 | NA | 136124590 | T | A | 0.99747 | 0.075064 | 1248.8 | 3.171 | 0 | 0 | 0.0012664 | ND | ND | ND |
| 17 | --- | rs115370344 | NA | 136124602 | T | G | 0.99982 | 0.017178 | 1251.8 | 0.225 | 0 | 0 | 0 | ND | ND | ND |
| 18 | --- | rs12338026 | NA | 136124857 | C | G | 0.9993 | 0.58542 | 1250.4 | 1.624 | 0 | 0 | 0.00064856 | ND | ND | ND |
| 19 | --- | rs7047076 | NA | 136125329 | A | T | 0.989 | 0.97695 | 702.56 | 475.81 | 73.599 | 0.031 | 0.24881 | 0.032534 | 0.046852 | 0.48743 |
| 20 | --- | rs193302481 | NA | 136125592 | C | T | 1 | 0.0009992 | 1252 | 0.002 | 0 | 0 | 0 | ND | ND | ND |
| 21 | --- | rs9411474 | NA | 136125716 | C | G | 0.98636 | 0.97321 | 702.37 | 476.16 | 73.432 | 0.031 | 0.24882 | 0.032289 | 0.046956 | 0.49168 |
| 22 | --- | rs61527302 | NA | 136125994 | G | A | 0.98778 | 0.97299 | 813.69 | 388.96 | 49.337 | 0.007 | 0.19474 | 0.077463 | 0.050608 | 0.12585 |
| 23 | --- | rs191151099 | NA | 136126026 | T | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 24 | --- | rs10901251 | NA | 136126129 | A | C | 0.97626 | 0.96443 | 456.22 | 577.46 | 218.27 | 0.044 | 0.40497 | 0.20263 | 0.040336 | 5.0714e-07 |
| 25 | --- | rs148763789 | NA | 136126132 | C | T | 0.99999 | 0.0058286 | 1252 | 0.012 | 0 | 0 | 0 | ND | ND | ND |
| 26 | --- | rs188658949 | NA | 136126153 | G | T | 1 | 0.0019992 | 1252 | 0.002 | 0 | 0 | 0 | ND | ND | ND |
| 27 | --- | rs78320709 | NA | 136126394 | C | T | 0.989 | 0.49772 | 1231.6 | 20.321 | 0.068 | 0.002 | 0.0081697 | -0.39605 | 0.26639 | 0.13709 |
| 28 | --- | rs34266669 | NA | 136126495 | C | T | 0.98406 | 0.96903 | 702.47 | 476.4 | 73.112 | 0.022 | 0.24866 | 0.032268 | 0.047075 | 0.49305 |
| 29 | --- | rs151316644 | NA | 136126625 | G | A | 0.99948 | 0.039007 | 1251.3 | 0.653 | 0 | 0 | 0.00026078 | ND | ND | ND |
| 30 | --- | rs3205136 | NA | 136126631 | C | A | 0.98673 | 0.96021 | 895.8 | 322.73 | 33.451 | 0.018 | 0.15561 | 0.33809 | 0.055421 | 1.0577e-09 |
| 31 | --- | rs7849280 | NA | 136126636 | A | G | 0.94202 | 0.87242 | 783.14 | 416.66 | 52.162 | 0.033 | 0.20807 | 0.028529 | 0.053719 | 0.59537 |
| 32 | --- | rs116958345 | NA | 136127122 | A | C | 0.99974 | 0.013815 | 1251.7 | 0.33 | 0 | 0 | 0.00013179 | ND | ND | ND |
| 33 | --- | rs9411475 | NA | 136127268 | T | C | 0.95823 | 0.92214 | 649.98 | 507.3 | 94.676 | 0.044 | 0.27823 | 0.018941 | 0.046111 | 0.68124 |
| 34 | --- | rs118065674 | NA | 136127346 | C | T | 0.99999 | 0.0019952 | 1252 | 0.012 | 0 | 0 | 0 | ND | ND | ND |
| 35 | --- | rs12216891 | NA | 136127366 | C | T | 0.97965 | 0.94627 | 834.13 | 376.17 | 41.661 | 0.04 | 0.18351 | 0.3858 | 0.053041 | 3.4977e-13 |
| 36 | --- | chr9:136127382:I | NA | 136127382 | A | AGCCTC | 0.99991 | 0.015581 | 1251.9 | 0.115 | 0 | 0 | 0 | ND | ND | ND |
| 37 | --- | rs13291798 | NA | 136127481 | A | G | 0.99227 | 0.25953 | 1242.2 | 9.761 | 0 | 0.002 | 0.0038982 | -0.43236 | 0.39464 | 0.27327 |
| 38 | --- | rs186319566 | NA | 136127534 | C | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 39 | --- | rs9411476 | NA | 136127601 | G | A | 0.98081 | 0.95873 | 741.55 | 443.51 | 66.925 | 0.017 | 0.23058 | 0.033088 | 0.047993 | 0.49055 |
| 40 | --- | rs34085694 | NA | 136127605 | C | G | 0.99157 | 0.24806 | 1241.4 | 10.634 | 0.003 | 0.004 | 0.0042492 | -0.49702 | 0.40463 | 0.21933 |
| 41 | --- | rs4962113 | NA | 136127641 | T | C | 0.90386 | 0.84096 | 575.07 | 543.82 | 133.01 | 0.099 | 0.32345 | -0.17926 | 0.045581 | 8.3987e-05 |
| 42 | --- | rs112134200 | NA | 136127689 | A | G | 0.99849 | 0.18823 | 1250.1 | 1.89 | 0 | 0 | 0.00075479 | ND | ND | ND |
| 43 | --- | rs146579922 | NA | 136127736 | C | T | 0.99748 | 0.11506 | 1248.8 | 3.154 | 0 | 0 | 0.0012596 | ND | ND | ND |
| 44 | --- | rs115413527 | NA | 136127737 | G | A | 0.98845 | 0.26706 | 1236.9 | 15.091 | 0 | 0 | 0.0060268 | -0.14746 | 0.38746 | 0.70352 |
| 45 | --- | rs62574563 | NA | 136127764 | C | T | 0.96103 | 0.91922 | 675.29 | 484.63 | 92.006 | 0.071 | 0.26704 | -0.12629 | 0.046073 | 0.0061235 |
| 46 | --- | rs62574564 | NA | 136127811 | G | A | 0.96476 | 0.92562 | 683.55 | 482.47 | 85.92 | 0.057 | 0.26132 | -0.14733 | 0.046479 | 0.001525 |
| 47 | --- | rs73660468 | NA | 136127907 | G | A | 0.99996 | 0.012682 | 1251.9 | 0.054 | 0 | 0 | 0 | ND | ND | ND |
| 48 | --- | rs189931088 | NA | 136127934 | C | A | 0.99995 | 0.033943 | 1251.9 | 0.058 | 0 | 0 | 0 | ND | ND | ND |
| 49 | --- | rs34039247 | NA | 136127956 | A | C | 0.99135 | 0.23459 | 1241.2 | 10.828 | 0.001 | 0.001 | 0.0043251 | -0.46352 | 0.39745 | 0.24352 |
| 50 | --- | rs10901252 | NA | 136128000 | G | C | 0.99201 | 0.97662 | 838.99 | 369.68 | 43.306 | 0.017 | 0.18223 | 0.37994 | 0.05184 | 2.3166e-13 |
| 51 | --- | rs141318395 | NA | 136128175 | G | A | 0.99976 | 0.008487 | 1251.7 | 0.299 | 0 | 0 | 0.00011941 | ND | ND | ND |
| 52 | --- | rs62574565 | NA | 136128259 | G | A | 0.98307 | 0.9609 | 706.68 | 467.13 | 78.136 | 0.054 | 0.24897 | -0.13633 | 0.046705 | 0.003511 |
| 53 | --- | rs58081338 | NA | 136128329 | T | C | 0.98293 | 0.96091 | 705.84 | 467.9 | 78.204 | 0.057 | 0.24933 | -0.1371 | 0.046684 | 0.0033167 |
| 54 | --- | rs62574567 | NA | 136128421 | C | G | 0.98235 | 0.95978 | 706.69 | 467.16 | 78.094 | 0.05 | 0.24895 | -0.13692 | 0.046709 | 0.0033756 |
| 55 | --- | rs60484807 | NA | 136128467 | A | G | 0.98558 | 0.97444 | 425.78 | 609.68 | 216.5 | 0.04 | 0.41642 | 0.12501 | 0.040749 | 0.0021568 |
| 56 | --- | rs7857390 | NA | 136128546 | A | G | 0.97543 | 0.94996 | 111.38 | 510.4 | 630.16 | 0.056 | 0.29281 | 0.176 | 0.044343 | 7.2195e-05 |
| 57 | --- | rs77693339 | NA | 136128558 | T | C | 0.99453 | 0.98277 | 868.78 | 348.12 | 35.085 | 0.016 | 0.16705 | 0.39978 | 0.053789 | 1.0667e-13 |
| 58 | --- | rs12554580 | NA | 136128603 | T | C | 0.9858 | 0.97488 | 425.82 | 609.68 | 216.45 | 0.043 | 0.41639 | 0.125 | 0.040742 | 0.0021543 |
| 59 | --- | rs12554336 | NA | 136128663 | A | G | 0.96931 | 0.93122 | 719.48 | 460.02 | 72.445 | 0.053 | 0.24159 | -0.13583 | 0.047909 | 0.0045813 |
| 60 | --- | rs12554595 | NA | 136128664 | T | C | 0.96954 | 0.93141 | 720.32 | 459.28 | 72.357 | 0.049 | 0.24122 | -0.13513 | 0.047933 | 0.0048133 |
| 61 | --- | rs11244051 | NA | 136128731 | G | A | 0.99583 | 0.14038 | 1246.8 | 5.212 | 0.003 | 0 | 0.0020839 | ND | ND | ND |
| 62 | --- | rs12554339 | NA | 136128737 | A | C | 0.98236 | 0.95916 | 705.65 | 467.64 | 78.678 | 0.038 | 0.2496 | -0.13505 | 0.046741 | 0.003861 |
| 63 | --- | rs10901253 | NA | 136128772 | T | C | 0.98353 | 0.96237 | 706.03 | 467.75 | 78.166 | 0.047 | 0.24924 | -0.13677 | 0.046658 | 0.0033761 |
| 64 | --- | rs10751502 | NA | 136129079 | A | G | 0.98545 | 0.97436 | 425.26 | 609.23 | 217.47 | 0.042 | 0.41701 | 0.12391 | 0.040704 | 0.0023338 |
| 65 | --- | rs35698328 | NA | 136129112 | C | T | 0.99154 | 0.18325 | 1240.6 | 11.35 | 0.009 | 0.007 | 0.00454 | -0.60565 | 0.48481 | 0.21157 |
| 66 | --- | rs10793962 | NA | 136129115 | A | T | 0.99495 | 0.98413 | 868.71 | 348.23 | 35.047 | 0.011 | 0.16706 | 0.3993 | 0.053756 | 1.1018e-13 |
| 67 | --- | rs11244052 | NA | 136129125 | C | A | 0.98427 | 0.96382 | 706.97 | 466.93 | 78.048 | 0.053 | 0.24882 | -0.13578 | 0.046653 | 0.0036089 |
| 68 | --- | rs11244053 | NA | 136129360 | A | G | 0.98434 | 0.96435 | 706.28 | 467.59 | 78.091 | 0.038 | 0.24912 | -0.13629 | 0.046616 | 0.0034591 |
| 69 | --- | rs4962114 | NA | 136129611 | G | A | 0.98237 | 0.95956 | 709.96 | 464.38 | 77.611 | 0.05 | 0.24745 | -0.13701 | 0.046782 | 0.0034041 |
| 70 | --- | rs4962115 | NA | 136129642 | T | G | 0.98471 | 0.9653 | 706.4 | 467.49 | 78.071 | 0.04 | 0.24906 | -0.13611 | 0.046598 | 0.003491 |
| 71 | --- | rs8176759 | NA | 136129647 | G | A | 0.99532 | 0.98533 | 868.68 | 348.31 | 35.003 | 0.015 | 0.16706 | 0.39884 | 0.053725 | 1.1389e-13 |
| 72 | --- | rs1137827 | NA | 136129715 | C | T | 0.99537 | 0.98551 | 868.67 | 348.32 | 34.997 | 0.015 | 0.16706 | 0.3988 | 0.053722 | 1.1402e-13 |
| 73 | --- | rs4962116 | NA | 136129716 | G | A | 0.9848 | 0.96551 | 706.42 | 467.47 | 78.062 | 0.048 | 0.24905 | -0.13606 | 0.046596 | 0.0035001 |
| 74 | --- | rs188682222 | NA | 136129731 | G | A | 0.99938 | 0.028384 | 1251.2 | 0.776 | 0 | 0.001 | 0.0003099 | ND | ND | ND |
| 75 | --- | rs8176757 | NA | 136130012 | A | C | 0.9881 | 0.97928 | 426.23 | 609.66 | 216.07 | 0.034 | 0.41607 | 0.12499 | 0.040661 | 0.0021122 |
| 76 | --- | rs117308290 | NA | 136130382 | G | A | 0.99967 | 0.23179 | 1251.6 | 0.411 | 0 | 0 | 0.00016414 | ND | ND | ND |
| 77 | --- | rs62641783 | NA | 136130653 | G | C | 0.88545 | 0.59613 | 1003.7 | 236.21 | 12.038 | 0.033 | 0.10395 | -0.26212 | 0.087501 | 0.0027385 |
| 78 | --- | rs62641784 | NA | 136130665 | G | A | 0.91516 | 0.55494 | 1077.8 | 169.01 | 5.2 | 0.024 | 0.07165 | -0.29074 | 0.10768 | 0.0069306 |
| 79 | --- | rs62641785 | NA | 136130669 | T | C | 0.89227 | 0.71802 | 888.33 | 334.16 | 29.466 | 0.048 | 0.15699 | -0.20621 | 0.065714 | 0.0017009 |
| 80 | --- | rs62641786 | NA | 136130677 | T | C | 0.89017 | 0.66483 | 963.82 | 269.33 | 18.851 | 0.005 | 0.12262 | -0.22281 | 0.075894 | 0.0033264 |
| 81 | --- | rs184116305 | NA | 136130686 | C | G | 0.96079 | 0.4347 | 1184.9 | 66.245 | 0.872 | 0.001 | 0.027152 | -0.33159 | 0.204 | 0.10407 |
| 82 | --- | rs187645401 | NA | 136130689 | A | G | 0.93208 | 0.52788 | 1119.8 | 128.06 | 4.125 | 0.014 | 0.054437 | -0.08766 | 0.13053 | 0.50186 |
| 83 | --- | rs192412098 | NA | 136130694 | C | G | 0.94028 | 0.44951 | 1150.2 | 99.31 | 2.445 | 0.012 | 0.041614 | -0.24882 | 0.15583 | 0.11032 |
| 84 | --- | rs62636487 | NA | 136130702 | C | T | 0.93479 | 0.62416 | 1086.1 | 159 | 6.873 | 0.018 | 0.068988 | -0.12186 | 0.10645 | 0.25229 |
| 85 | --- | rs141472448 | NA | 136130703 | G | A | 1 | 0.0019992 | 1252 | 0.002 | 0 | 0 | 0 | ND | ND | ND |
| 86 | --- | rs7469795 | NA | 136130893 | T | C | 0.97592 | 0.96017 | 468.91 | 593.26 | 189.78 | 0.047 | 0.38852 | 0.1473 | 0.041435 | 0.00037802 |
| 87 | --- | rs8176751 | NA | 136131022 | C | T | 0.99942 | 0.99823 | 867.13 | 349.79 | 35.078 | 0.004 | 0.16771 | 0.39919 | 0.05321 | 6.2797e-14 |
| 88 | --- | chr9:136131056:D | NA | 136131056 | CG | C | 0.99846 | 0.14736 | 1250.1 | 1.921 | 0 | 0.001 | 0.00076717 | ND | ND | ND |
| 89 | --- | rs183748371 | NA | 136131065 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 90 | rs8176749 | rs8176749 | NA | 136131188 | C | T | 1 | 1 | 881 | 338 | 33 | 0 | 0.16134 | 0.40539 | 0.053925 | 5.5758e-14 |
| 91 | --- | rs8176748 | NA | 136131289 | C | T | 0.99751 | 0.99449 | 710.81 | 462.39 | 78.797 | 0.009 | 0.2476 | -0.14203 | 0.045885 | 0.0019658 |
| 92 | --- | rs8176747 | NA | 136131315 | C | G | 0.99997 | 0.99989 | 867.04 | 349.96 | 35 | 0 | 0.16772 | 0.39936 | 0.053191 | 6.0051e-14 |
| 93 | --- | rs41302905 | NA | 136131316 | C | T | 0.99999 | 0.0058286 | 1252 | 0.012 | 0 | 0 | 0 | ND | ND | ND |
| 94 | rs8176746 | rs8176746 | NA | 136131322 | G | T | 1 | 1 | 867 | 350 | 35 | 0 | 0.16773 | 0.39939 | 0.053189 | 5.9587e-14 |
| 95 | --- | rs8176745 | NA | 136131347 | G | A | 0.99765 | 0.99502 | 710.91 | 462.38 | 78.694 | 0.011 | 0.24751 | -0.14204 | 0.045882 | 0.0019637 |
| 96 | --- | rs8176744 | NA | 136131350 | G | T | 0.98229 | 0.29554 | 1228.2 | 23.766 | 0.027 | 0 | 0.0095128 | -0.43646 | 0.28641 | 0.12753 |
| 97 | --- | rs8176743 | NA | 136131415 | C | T | 0.9978 | 0.99462 | 861.32 | 352.08 | 38.607 | 0 | 0.17144 | 0.3825 | 0.052473 | 3.1097e-13 |
| 98 | --- | rs56116432 | NA | 136131429 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 99 | --- | rs8176742 | NA | 136131437 | C | T | 0.9935 | 0.98443 | 722.51 | 454.38 | 75.088 | 0.021 | 0.24144 | -0.13652 | 0.046531 | 0.0033462 |
| 100 | --- | rs8176741 | NA | 136131461 | G | A | 0.99775 | 0.9945 | 861.25 | 352.1 | 38.648 | 0.001 | 0.17149 | 0.38232 | 0.052465 | 3.1646e-13 |
| 101 | --- | rs190299333 | NA | 136131469 | G | A | 0.99712 | 0.096925 | 1248.4 | 3.601 | 0 | 0 | 0.0014381 | ND | ND | ND |
| 102 | --- | rs8176740 | NA | 136131472 | A | T | 0.99776 | 0.9953 | 718.08 | 456.4 | 77.508 | 0.009 | 0.24418 | -0.13819 | 0.045993 | 0.0026587 |
| 103 | --- | rs8176739 | NA | 136131523 | G | A | 0.9999 | 0.051417 | 1251.9 | 0.121 | 0 | 0 | 0 | ND | ND | ND |
| 104 | --- | rs184446112 | NA | 136131556 | G | T | 0.99978 | 0.051382 | 1251.7 | 0.272 | 0 | 0 | 0.00010863 | ND | ND | ND |
| 105 | --- | rs55727303 | NA | 136131576 | C | T | 0.98865 | 0.6437 | 1223.4 | 27.543 | 1.08 | 0 | 0.011862 | 0.89465 | 0.32628 | 0.0061078 |
| 106 | --- | rs55687199 | NA | 136131589 | C | T | 0.99841 | 0.46096 | 1248.5 | 3.488 | 0 | 0.002 | 0.001393 | -0.99484 | 0.76938 | 0.196 |
| 107 | --- | rs7853989 | NA | 136131592 | G | C | 0.99774 | 0.99454 | 861.24 | 352.09 | 38.676 | 0 | 0.1715 | 0.38223 | 0.052459 | 3.1854e-13 |
| 108 | --- | rs1053878 | NA | 136131651 | G | A | 0.99077 | 0.97859 | 758.22 | 425.4 | 68.374 | 0.01 | 0.2245 | 0.06576 | 0.04745 | 0.16578 |
| 109 | --- | rs8176737 | NA | 136131783 | C | T | 0.99711 | 0.99388 | 717.74 | 456.23 | 78.024 | 0.008 | 0.24452 | -0.13799 | 0.045967 | 0.0026834 |
| 110 | --- | rs8176736 | NA | 136131785 | T | C | 0.99528 | 0.98945 | 720.11 | 454.62 | 77.263 | 0.012 | 0.24327 | -0.13993 | 0.046158 | 0.0024329 |
| 111 | --- | rs7873416 | NA | 136131846 | T | C | 0.99723 | 0.99538 | 428.83 | 606.89 | 216.26 | 0.012 | 0.41511 | 0.11934 | 0.04034 | 0.0030931 |
| 112 | --- | rs7855255 | NA | 136131895 | C | T | 0.99772 | 0.99454 | 861.19 | 352.08 | 38.729 | 0.001 | 0.17154 | 0.38205 | 0.052448 | 3.2309e-13 |
| 113 | --- | rs7873522 | NA | 136131905 | T | C | 0.99571 | 0.99233 | 427.91 | 606.8 | 217.29 | 0.011 | 0.41589 | 0.1192 | 0.040365 | 0.0031478 |
| 114 | --- | rs114820734 | NA | 136132010 | T | C | 0.99727 | 0.99542 | 428.86 | 606.84 | 216.29 | 0.007 | 0.41511 | 0.11934 | 0.040338 | 0.0030917 |
| 115 | --- | rs7873635 | NA | 136132012 | T | C | 0.9938 | 0.98724 | 110.36 | 513.6 | 628.03 | 0.009 | 0.29326 | 0.16915 | 0.043636 | 0.00010608 |
| 116 | --- | rs113209447 | NA | 136132079 | C | T | 0.9961 | 0.99181 | 719.32 | 456.25 | 76.416 | 0.01 | 0.24325 | -0.13917 | 0.046188 | 0.0025859 |
| 117 | --- | rs112685218 | NA | 136132168 | T | C | 0.99768 | 0.99454 | 861.15 | 352.08 | 38.777 | 0 | 0.17158 | 0.38188 | 0.052439 | 3.2774e-13 |
| 118 | --- | rs181890403 | NA | 136132205 | G | A | 0.9998 | 0.016255 | 1251.7 | 0.254 | 0 | 0 | 0.00010144 | ND | ND | ND |
| 119 | --- | rs8176732 | NA | 136132303 | A | G | 0.99383 | 0.98643 | 716.86 | 457.83 | 77.302 | 0.012 | 0.24458 | -0.14036 | 0.046138 | 0.0023482 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 120 | --- | rs8176731 | NA | 136132350 | T | C | 0.99741 | 0.99567 | 428.81 | 606.82 | 216.35 | 0.015 | 0.41515 | 0.11926 | 0.040332 | 0.0031066 |
| 121 | --- | rs2073823 | NA | 136132516 | G | A | 0.99758 | 0.99453 | 860.98 | 352.1 | 38.922 | 0 | 0.1717 | 0.38133 | 0.052409 | 3.4373e-13 |
| 122 | --- | rs8176730 | NA | 136132525 | T | C | 0.99761 | 0.99463 | 860.99 | 352.07 | 38.936 | 0 | 0.1717 | 0.3813 | 0.052406 | 3.44e-13 |
| 123 | --- | rs8176728 | NA | 136132561 | G | C | 0.99785 | 0.99567 | 718.21 | 456.02 | 77.765 | 0.005 | 0.24423 | -0.13836 | 0.045954 | 0.0026059 |
| 124 | --- | rs8176727 | NA | 136132570 | G | A | 0.99823 | 0.99639 | 718.31 | 456.29 | 77.398 | 0.008 | 0.24405 | -0.13809 | 0.045985 | 0.0026742 |
| 125 | --- | rs112655244 | NA | 136132608 | C | T | 0.99795 | 0.9959 | 718.35 | 455.96 | 77.685 | 0.007 | 0.24414 | -0.13841 | 0.045967 | 0.0026033 |
| 126 | --- | rs8176725 | NA | 136132617 | G | A | 0.99526 | 0.99115 | 721.82 | 446.91 | 83.272 | 0 | 0.24499 | 0.3069 | 0.045456 | 1.4632e-11 |
| 127 | rs2073824 | rs2073824 | NA | 136132633 | A | G | 1 | 1 | 327 | 609 | 316 | 0 | 0.49561 | 0.12405 | 0.039195 | 0.0015511 |
| 128 | --- | rs2073825 | NA | 136132707 | A | T | 0.99883 | 0.99748 | 718.55 | 456.18 | 77.27 | 0.001 | 0.2439 | -0.13807 | 0.045986 | 0.0026785 |
| 129 | --- | rs8176722 | NA | 136132754 | C | A | 0.99867 | 0.99629 | 860.62 | 351.83 | 39.546 | 0.001 | 0.1721 | 0.37927 | 0.052282 | 4.0392e-13 |
| 130 | --- | rs8176721 | NA | 136132852 | G | A | 0.99934 | 0.062922 | 1251.2 | 0.82 | 0 | 0.001 | 0.00032748 | ND | ND | ND |
| 131 | --- | rs8176720 | NA | 136132873 | T | C | 0.99964 | 0.9993 | 428.06 | 606.21 | 217.73 | 0 | 0.416 | 0.11869 | 0.04023 | 0.0031746 |
| 132 | --- | chr9:136132908:I | NA | 136132908 | T | TC | 0.99875 | 0.99767 | 387.31 | 595.14 | 269.54 | 0.002 | 0.45297 | 0.23404 | 0.039133 | 2.2221e-09 |
| 133 | --- | rs75179845 | NA | 136132954 | T | C | 0.99743 | 0.99301 | 862.35 | 350.51 | 39.138 | 0.003 | 0.17124 | 0.38078 | 0.05249 | 4.0388e-13 |
| 134 | --- | rs8176718 | NA | 136132957 | C | T | 0.99986 | 0.99962 | 718.94 | 456.01 | 77.051 | 0 | 0.24365 | -0.13811 | 0.045994 | 0.0026754 |
| 135 | --- | rs8176717 | NA | 136133034 | G | T | 0.99933 | 0.99837 | 719.63 | 455.38 | 76.989 | 0 | 0.24335 | -0.13799 | 0.046009 | 0.0027072 |
| 136 | --- | rs8176716 | NA | 136133065 | G | T | 0.99863 | 0.15653 | 1250.3 | 1.712 | 0 | 0 | 0.00068371 | ND | ND | ND |
| 137 | --- | rs8176715 | NA | 136133148 | T | C | 0.98802 | 0.97381 | 83.13 | 476.46 | 692.39 | 0.02 | 0.25668 | 0.15219 | 0.045798 | 0.00089066 |
| 138 | --- | rs191976170 | NA | 136133149 | G | A | 0.99921 | 0.24201 | 1251 | 0.989 | 0 | 0 | 0.00039497 | ND | ND | ND |
| 139 | --- | rs8176714 | NA | 136133178 | G | A | 0.99356 | 0.98601 | 648.13 | 505.84 | 98.016 | 0.01 | 0.2803 | -0.16059 | 0.04443 | 0.00030096 |
| 140 | --- | rs115166192 | NA | 136133218 | C | T | 0.99965 | 0.0086304 | 1251.6 | 0.441 | 0 | 0 | 0.00017612 | ND | ND | ND |
| 141 | --- | rs182985414 | NA | 136133346 | A | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 142 | --- | chr9:136133380:D | NA | 136133380 | CGGG | C | 0.99867 | 0.99649 | 76.608 | 455.3 | 720.09 | 0.004 | 0.24302 | 0.13713 | 0.046111 | 0.0029396 |
| 143 | --- | rs45610939 | NA | 136133396 | A | G | 0.9792 | 0.8157 | 1146.1 | 105.73 | 0.204 | 0.003 | 0.042387 | -0.29314 | 0.10983 | 0.0076077 |
| 144 | rs512770 | rs512770 | NA | 136133506 | A | G | 1 | 1 | 77 | 456 | 719 | 0 | 0.24361 | 0.1381 | 0.045998 | 0.0026784 |
| 145 | --- | rs4962040 | NA | 136133531 | A | G | 0.99764 | 0.99606 | 629.73 | 513.26 | 109.01 | 0.008 | 0.29204 | -0.168 | 0.043586 | 0.000116 |
| 146 | --- | chr9:136133582:D | NA | 136133582 | AG | A | 0.99258 | 0.98658 | 91.997 | 483.41 | 676.59 | 0.002 | 0.26654 | 0.1278 | 0.044937 | 0.0044552 |
| 147 | --- | rs641959 | NA | 136133699 | C | A | 0.99758 | 0.99575 | 89.25 | 468.68 | 694.07 | 0.001 | 0.25846 | 0.13101 | 0.044934 | 0.0035502 |
| 148 | --- | rs641943 | NA | 136133714 | G | A | 0.99778 | 0.99624 | 89.165 | 468.59 | 694.24 | 0.001 | 0.25836 | 0.13091 | 0.044938 | 0.0035781 |
| 149 | --- | rs514708 | NA | 136133743 | T | C | 0.99778 | 0.99625 | 89.165 | 468.59 | 694.24 | 0 | 0.25836 | 0.13091 | 0.044938 | 0.0035785 |
| 150 | --- | rs517414 | NA | 136134034 | A | G | 0.9996 | 0.99919 | 80.042 | 459.41 | 712.54 | 0 | 0.2474 | 0.13739 | 0.045696 | 0.0026413 |
| 151 | --- | rs9411372 | NA | 136134068 | G | A | 0.97122 | 0.94646 | 730.07 | 444.16 | 77.763 | 0.012 | 0.23949 | 0.036719 | 0.047153 | 0.43615 |
| 152 | --- | rs138164693 | NA | 136134118 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 153 | --- | rs638756 | NA | 136134472 | C | A | 0.99787 | 0.99641 | 89.116 | 468.64 | 694.24 | 0 | 0.25834 | 0.13085 | 0.04494 | 0.0035961 |
| 154 | --- | rs191050088 | NA | 136134650 | C | A | 0.99671 | 0.14604 | 1247.9 | 4.122 | 0 | 0 | 0.0016462 | ND | ND | ND |
| 155 | --- | rs183228393 | NA | 136134835 | G | A | 1 | 0.0033309 | 1252 | 0.006 | 0 | 0 | 0 | ND | ND | ND |
| 156 | --- | rs626792 | NA | 136134864 | C | A | 0.93522 | 0.87801 | 103.9 | 510.59 | 637.49 | 0.026 | 0.2869 | 0.13795 | 0.047145 | 0.0034334 |
| 157 | --- | rs626035 | NA | 136134994 | G | T | 0.97273 | 0.94743 | 99.363 | 483.5 | 669.14 | 0.006 | 0.27245 | 0.14245 | 0.04496 | 0.0015325 |
| 158 | --- | rs547495 | NA | 136134995 | C | T | 0.97273 | 0.94743 | 99.363 | 483.49 | 669.14 | 0.006 | 0.27245 | 0.14245 | 0.04496 | 0.0015329 |
| 159 | --- | rs547643 | NA | 136135047 | T | C | 1 | 1 | 80.001 | 459 | 713 | 0 | 0.2472 | 0.13752 | 0.045697 | 0.0026184 |
| 160 | --- | rs625593 | NA | 136135096 | A | G | 0.99998 | 0.99995 | 80.002 | 459.02 | 712.98 | 0 | 0.24721 | 0.13753 | 0.045697 | 0.0026163 |
| 161 | --- | rs8176707 | NA | 136135108 | G | T | 0.9361 | 0.7539 | 1021.6 | 214.61 | 15.814 | 0.015 | 0.098338 | -0.26212 | 0.073878 | 0.00038805 |
| 162 | --- | chr9:136135137:D | NA | 136135137 | GCTTCTGTCCACAC | G | 0.98818 | 0.97538 | 85.311 | 466.49 | 700.19 | 0.007 | 0.25444 | 0.13855 | 0.045722 | 0.0024426 |
| 163 | --- | rs138374634 | NA | 136135194 | G | A | 0.99916 | 0.84615 | 1246.3 | 5.664 | 0 | 0 | 0.002262 | -0.21306 | 0.45575 | 0.64014 |
| 164 | --- | rs549331 | NA | 136135195 | G | C | 0.99799 | 0.99664 | 89.053 | 468.71 | 694.24 | 0 | 0.25831 | 0.13077 | 0.044942 | 0.0036164 |
| 165 | --- | rs549443 | NA | 136135237 | A | G | 0.89151 | 0.7955 | 120.08 | 528.79 | 603.05 | 0.085 | 0.30711 | 0.12136 | 0.047813 | 0.01114 |
| 166 | --- | rs549446 | NA | 136135238 | T | C | 0.88939 | 0.79851 | 130.45 | 531.66 | 589.83 | 0.055 | 0.31653 | 0.1413 | 0.046863 | 0.0025677 |
| 167 | --- | rs149279023 | NA | 136135321 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 168 | --- | rs624601 | NA | 136135365 | A | G | 0.99799 | 0.99664 | 89.053 | 468.71 | 694.24 | 0 | 0.25831 | 0.13077 | 0.044942 | 0.0036164 |
| 169 | --- | rs551322 | NA | 136135444 | G | A | 1 | 1 | 80 | 459 | 713 | 0 | 0.2472 | 0.13752 | 0.045697 | 0.0026186 |
| 170 | --- | rs192192638 | NA | 136135445 | C | T | 0.96586 | 0.37961 | 1202.7 | 49.017 | 0.258 | 0.008 | 0.019782 | -0.21201 | 0.19199 | 0.26947 |
| 171 | --- | rs188088103 | NA | 136135472 | C | T | 0.99846 | 0.029421 | 1250.1 | 1.927 | 0 | 0.002 | 0.00076957 | ND | ND | ND |
| 172 | --- | rs613423 | NA | 136135478 | A | G | 1 | 1 | 80 | 459 | 713 | 0 | 0.2472 | 0.13752 | 0.045697 | 0.0026186 |
| 173 | --- | rs8176704 | NA | 136135552 | G | A | 0.99874 | 0.1339 | 1250.4 | 1.574 | 0 | 0 | 0.00062859 | ND | ND | ND |
| 174 | --- | chr9:136135625:D | NA | 136135625 | CTG | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 175 | rs574347 | rs574347 | NA | 136135659 | C | T | 1 | 1 | 80 | 459 | 713 | 0 | 0.2472 | 0.13752 | 0.045697 | 0.0026186 |
| 176 | --- | rs575259 | NA | 136135752 | G | A | 0.99798 | 0.99664 | 89.052 | 468.71 | 694.24 | 0.001 | 0.25831 | 0.13077 | 0.044942 | 0.0036172 |
| 177 | --- | rs8176703 | NA | 136135863 | G | T | 0.99894 | 0.21781 | 1250.7 | 1.35 | 0 | 0 | 0.00053914 | ND | ND | ND |
| 178 | --- | rs8176702 | NA | 136136146 | G | A | 0.9983 | 0.99712 | 630.2 | 512.79 | 109.01 | 0.001 | 0.29186 | -0.16821 | 0.04356 | 0.00011268 |
| 179 | --- | rs579483 | NA | 136136196 | A | T | 0.99999 | 0.99998 | 80 | 459.01 | 712.99 | 0 | 0.24721 | 0.13751 | 0.045697 | 0.0026198 |
| 180 | --- | rs579622 | NA | 136136242 | A | G | 0.99999 | 0.99997 | 80 | 459.01 | 712.99 | 0 | 0.24721 | 0.13751 | 0.045697 | 0.0026199 |
| 181 | --- | rs140166545 | NA | 136136367 | C | T | 0.99989 | 0.058102 | 1251.9 | 0.137 | 0 | 0 | 0 | ND | ND | ND |
| 182 | --- | rs493211 | NA | 136136516 | A | G | 0.99977 | 0.9994 | 79.938 | 459.06 | 713 | 0.002 | 0.24718 | 0.13732 | 0.045716 | 0.0026667 |
| 183 | --- | rs8176698 | NA | 136136593 | T | C | 0.9993 | 0.065935 | 1251.1 | 0.874 | 0 | 0 | 0.00034904 | ND | ND | ND |
| 184 | --- | rs688976 | NA | 136136770 | A | C | 0.99996 | 0.99989 | 80.015 | 459.02 | 712.96 | 0 | 0.24722 | 0.1375 | 0.045696 | 0.00262 |
| 185 | --- | rs8176696 | NA | 136136773 | C | T | 0.9993 | 0.065935 | 1251.1 | 0.874 | 0 | 0 | 0.00034904 | ND | ND | ND |
| 186 | --- | rs2073826 | NA | 136136963 | G | T | 0.99779 | 0.99642 | 629.42 | 513.48 | 109.1 | 0.002 | 0.2922 | -0.16751 | 0.043573 | 0.00012091 |
| 187 | --- | rs112565602 | NA | 136137050 | G | A | 0.9982 | 0.21075 | 1249.7 | 2.259 | 0 | 0 | 0.00090216 | ND | ND | ND |
| 188 | --- | rs687621 | NA | 136137065 | A | G | 0.99796 | 0.99735 | 378.17 | 594.14 | 279.69 | 0.002 | 0.46067 | 0.23505 | 0.039029 | 1.7184e-09 |
| 189 | --- | rs184686147 | NA | 136137088 | G | A | 0.99996 | 0.020119 | 1252 | 0.044 | 0 | 0 | 0 | ND | ND | ND |
| 190 | --- | rs687289 | NA | 136137106 | G | A | 0.99985 | 0.99973 | 393.1 | 591.97 | 266.92 | 0 | 0.44961 | 0.23365 | 0.039062 | 2.2119e-09 |
| 191 | --- | rs2073827 | NA | 136137133 | G | C | 1 | 1 | 609 | 527 | 116 | 0 | 0.30312 | -0.16228 | 0.043132 | 0.00016833 |
| 192 | rs2073828 | rs2073828 | NA | 136137140 | G | A | 1 | 1 | 609 | 527 | 116 | 0 | 0.30312 | -0.16228 | 0.043132 | 0.00016833 |
| 193 | --- | rs189048957 | NA | 136137228 | G | A | 0.99997 | 0.019153 | 1252 | 0.036 | 0 | 0 | 0 | ND | ND | ND |
| 194 | --- | rs150021186 | NA | 136137293 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 195 | --- | rs77513793 | NA | 136137296 | T | C | 0.99874 | 0.38576 | 1249.6 | 2.428 | 0 | 0 | 0.00096965 | ND | ND | ND |
| 196 | --- | chr9:136137375:I | NA | 136137375 | A | AT | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 197 | --- | rs55876802 | NA | 136137547 | C | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 198 | --- | rs143174772 | NA | 136137600 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 199 | --- | rs151155628 | NA | 136137641 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 200 | rs8176694 | rs8176694 | NA | 136137646 | T | C | 1 | 1 | 963 | 273 | 16 | 0 | 0.12181 | -0.2153 | 0.061315 | 0.00044578 |
| 201 | --- | rs8176693 | NA | 136137657 | C | T | 0.99885 | 0.99686 | 867.98 | 346.46 | 37.558 | 0.001 | 0.16836 | 0.3894 | 0.052809 | 1.6602e-13 |
| 202 | --- | rs673578 | NA | 136137857 | G | T | 0.99739 | 0.99552 | 88.963 | 468.74 | 694.3 | 0.001 | 0.25825 | 0.13014 | 0.044965 | 0.003802 |
| 203 | --- | rs8176692 | NA | 136137937 | T | C | 0.99811 | 0.9461 | 1225.3 | 25.718 | 0.996 | 0.001 | 0.011066 | 0.042293 | 0.18992 | 0.82378 |
| 204 | --- | rs145090216 | NA | 136138074 | A | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 205 | --- | rs672316 | NA | 136138125 | G | T | 0.99727 | 0.99545 | 88.942 | 468.68 | 694.38 | 0.002 | 0.25821 | 0.13002 | 0.044969 | 0.0038371 |
| 206 | --- | rs8176691 | NA | 136138229 | C | T | 0.99753 | 0.99578 | 629.41 | 513.17 | 109.41 | 0.002 | 0.29233 | -0.16984 | 0.04356 | 9.6637e-05 |
| 207 | --- | rs8176690 | NA | 136138317 | A | G | 0.99914 | 0.99846 | 608.21 | 527.37 | 116.42 | 0.002 | 0.3036 | -0.16405 | 0.04314 | 0.0001431 |
| 208 | --- | rs189530394 | NA | 136138484 | A | C | 0.99787 | 0.18975 | 1249.3 | 2.673 | 0 | 0 | 0.0010675 | ND | ND | ND |
| 209 | --- | chr9:136138557:I | NA | 136138557 | A | AT | 0.97855 | 0.32172 | 1219 | 32.845 | 0.161 | 0.019 | 0.013246 | 1.6807 | 0.48277 | 0.00049884 |
| 210 | --- | rs8176688 | NA | 136138583 | C | T | 0.99895 | 0.22039 | 1250.7 | 1.332 | 0 | 0 | 0.00053195 | ND | ND | ND |
| 211 | --- | chr9:136138765:D | NA | 136138765 | GCGCCCACCACTA | G | 0.99123 | 0.93635 | 1118.2 | 132.71 | 1.127 | 0.007 | 0.053901 | -0.12525 | 0.092119 | 0.17393 |
| 212 | --- | rs8176686 | NA | 136138776 | T | C | 0.96729 | 0.93963 | 624.46 | 519.27 | 108.25 | 0.02 | 0.29384 | -0.16868 | 0.044658 | 0.00015861 |
| 213 | --- | rs186003835 | NA | 136138804 | G | A | 0.99905 | 0.092474 | 1250.8 | 1.188 | 0.002 | 0 | 0.00047604 | ND | ND | ND |
| 214 | --- | rs8176684 | NA | 136138874 | G | A | 0.99907 | 0.058687 | 1250.8 | 1.165 | 0 | 0.001 | 0.00046526 | ND | ND | ND |
| 215 | --- | rs147279040 | NA | 136138978 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 216 | --- | rs140783133 | NA | 136139110 | A | C | 0.99943 | 0.0989 | 1251.3 | 0.714 | 0 | 0 | 0.00028514 | ND | ND | ND |
| 217 | --- | rs147622835 | NA | 136139238 | G | A | 0.98897 | 0.66567 | 1221 | 29.835 | 1.121 | 0.003 | 0.01281 | 0.60711 | 0.27726 | 0.02855 |
| 218 | rs657152 | rs657152 | NA | 136139265 | C | A | 1 | 1 | 400 | 601 | 251 | 0 | 0.4405 | 0.24395 | 0.039492 | 6.5273e-10 |
| 219 | --- | rs8176682 | NA | 136139297 | C | T | 0.99739 | 0.99546 | 616.32 | 520.13 | 115.55 | 0.001 | 0.30001 | -0.17379 | 0.043201 | 5.7524e-05 |
| 220 | --- | rs139568229 | NA | 136139383 | G | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 221 | --- | rs149756392 | NA | 136139395 | G | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 222 | --- | rs145595975 | NA | 136139460 | G | A | 0.99811 | 0.94713 | 1225.3 | 25.67 | 0.998 | 0.001 | 0.011049 | 0.041792 | 0.18986 | 0.82578 |
| 223 | --- | rs148824570 | NA | 136139589 | C | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 224 | --- | rs474279 | NA | 136139617 | T | C | 0.99886 | 0.99784 | 81.091 | 458.96 | 711.95 | 0 | 0.24806 | 0.13477 | 0.045632 | 0.0031421 |
| 225 | --- | rs146458069 | NA | 136139672 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 226 | --- | rs8176765 | NA | 136139694 | A | C | 0.9988 | 0.36712 | 1249.9 | 2.121 | 0 | 0 | 0.00084704 | ND | ND | ND |
| 227 | --- | rs191325486 | NA | 136139702 | G | A | 0.99482 | 0.30152 | 1244.5 | 7.535 | 0.001 | 0 | 0.00301 | 1.8613 | 0.60945 | 0.0039284 |
| 228 | --- | rs8176681 | NA | 136139754 | T | C | 0.99692 | 0.99523 | 615.6 | 520.78 | 115.62 | 0.001 | 0.30033 | -0.17307 | 0.043205 | 6.1793e-05 |
| 229 | --- | rs144649415 | NA | 136139775 | G | T | 0.99323 | 0.9169 | 1164.4 | 83.111 | 4.491 | 0.009 | 0.036779 | -0.18025 | 0.10486 | 0.085609 |
| 230 | --- | rs141515001 | NA | 136139833 | T | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 231 | --- | chr9:136139907:D | NA | 136139907 | GAAACTGCC | G | 0.99662 | 0.9925 | 649.03 | 505.2 | 97.761 | 0.004 | 0.27984 | 0.028133 | 0.04434 | 0.52577 |
| 232 | --- | rs186048848 | NA | 136140035 | G | A | 0.9977 | 0.11318 | 1249.1 | 2.875 | 0 | 0 | 0.0011482 | ND | ND | ND |
| 233 | --- | rs1633513 | NA | 136140462 | C | T | 0.99669 | 0.99412 | 90.333 | 468.89 | 692.78 | 0 | 0.25941 | 0.12744 | 0.044872 | 0.0045111 |
| 234 | --- | rs149567216 | NA | 136140469 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 235 | --- | rs1633514 | NA | 136140513 | T | C | 0.99827 | 0.99689 | 81.247 | 458.84 | 711.91 | 0 | 0.24814 | 0.13464 | 0.04563 | 0.0031697 |
| 236 | --- | rs143159728 | NA | 136140613 | T | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 237 | --- | rs115325682 | NA | 136140759 | G | A | 0.99914 | 0.4883 | 1250.1 | 1.943 | 0 | 0 | 0.00077596 | ND | ND | ND |
| 238 | --- | rs1752339 | NA | 136141135 | C | T | 0.99063 | 0.98026 | 81.109 | 449.2 | 721.69 | 0.006 | 0.24418 | 0.13105 | 0.045929 | 0.004325 |
| 239 | --- | rs142141716 | NA | 136141226 | G | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 240 | --- | rs13299342 | NA | 136141504 | G | A | 0.99527 | 0.98648 | 872.75 | 342.77 | 36.481 | 0.003 | 0.16603 | 0.39461 | 0.053344 | 1.3895e-13 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 241 | --- | rs2519093 | NA | 136141870 | C | T | 0.99806 | 0.99625 | 647.5 | 505.95 | 98.545 | 0.004 | 0.28077 | 0.027212 | 0.04425 | 0.53857 |
| 242 | --- | rs144140881 | NA | 136141877 | G | T | 1 | 0.0059976 | 1252 | 0.006 | 0 | 0 | 0 | ND | ND | ND |
| 243 | --- | rs113423093 | NA | 136142000 | G | C | 0.96439 | 0.93239 | 103.39 | 487.25 | 661.33 | 0.03 | 0.27718 | 0.12425 | 0.045443 | 0.0062532 |
| 244 | --- | rs8176672 | NA | 136142185 | C | T | 0.99786 | 0.99415 | 874.05 | 341.66 | 36.29 | 0.001 | 0.16543 | 0.39692 | 0.05322 | 8.7796e-14 |
| 245 | --- | rs514659 | NA | 136142203 | A | C | 0.99836 | 0.99762 | 397.73 | 589.42 | 264.85 | 0 | 0.44693 | 0.23373 | 0.039049 | 2.1551e-09 |
| 246 | --- | rs644234 | NA | 136142217 | T | G | 0.99837 | 0.99763 | 397.73 | 589.42 | 264.85 | 0 | 0.44693 | 0.23373 | 0.039049 | 2.1556e-09 |
| 247 | --- | rs182705402 | NA | 136142293 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 248 | --- | rs140796254 | NA | 136142304 | A | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 249 | --- | rs8176671 | NA | 136142313 | A | C | 0.9968 | 0.99114 | 874.8 | 341.48 | 35.716 | 0.002 | 0.1649 | 0.39753 | 0.05343 | 1.0046e-13 |
| 250 | --- | rs143309559 | NA | 136142339 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 251 | --- | rs643434 | NA | 136142355 | G | A | 0.99816 | 0.99722 | 397.68 | 589.26 | 265.06 | 0.001 | 0.44704 | 0.23399 | 0.039054 | 2.0789e-09 |
| 252 | --- | rs8176669 | NA | 136142463 | A | C | 0.99711 | 0.99461 | 707.9 | 460.87 | 83.226 | 0.005 | 0.25053 | -0.13538 | 0.045525 | 0.0029426 |
| 253 | --- | rs148987354 | NA | 136142465 | G | A | 0.9999 | 0.020262 | 1251.9 | 0.128 | 0 | 0 | 0 | ND | ND | ND |
| 254 | --- | chr9:136142521:I | NA | 136142521 | C | CT | 0.99487 | 0.89609 | 1204.1 | 47.878 | 0 | 0.004 | 0.019121 | -0.0063473 | 0.15011 | 0.96627 |
| 255 | --- | chr9:136142540:I | NA | 136142540 | T | TTG | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 256 | --- | rs143746661 | NA | 136142711 | A | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 257 | --- | rs187821258 | NA | 136142968 | T | C | 0.99742 | 0.11314 | 1248.8 | 3.226 | 0 | 0 | 0.0012883 | ND | ND | ND |
| 258 | --- | rs543040 | NA | 136143000 | A | T | 0.99582 | 0.9934 | 396.75 | 589.54 | 265.71 | 0.001 | 0.44767 | 0.2362 | 0.039159 | 1.622e-09 |
| 259 | --- | rs146903770 | NA | 136143055 | A | G | 0.99111 | 0.28893 | 1240.3 | 11.683 | 0 | 0 | 0.0046657 | -0.0046294 | 0.46627 | 0.99208 |
| 260 | --- | rs613534 | NA | 136143120 | A | G | 0.99583 | 0.99385 | 399.27 | 589.45 | 263.29 | 0.001 | 0.4457 | 0.23496 | 0.039102 | 1.8695e-09 |
| 261 | --- | rs543968 | NA | 136143121 | T | C | 0.99437 | 0.9912 | 400.49 | 588.95 | 262.56 | 0.002 | 0.44492 | 0.23385 | 0.039169 | 2.3696e-09 |
| 262 | --- | rs139081859 | NA | 136143192 | G | T | 0.99825 | 0.077245 | 1249.8 | 2.196 | 0 | 0.001 | 0.000877 | ND | ND | ND |
| 263 | --- | rs544873 | NA | 136143212 | G | A | 0.99502 | 0.9917 | 402.45 | 586.52 | 263.02 | 0 | 0.44432 | 0.2267 | 0.03913 | 6.8917e-09 |
| 264 | --- | rs142956930 | NA | 136143330 | A | G | 0.99889 | 0.098024 | 1250.6 | 1.391 | 0 | 0 | 0.00055551 | ND | ND | ND |
| 265 | --- | rs545971 | NA | 136143372 | C | T | 0.99838 | 0.99763 | 397.73 | 589.42 | 264.85 | 0 | 0.44693 | 0.23372 | 0.039049 | 2.1595e-09 |
| 266 | --- | rs138194969 | NA | 136143391 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 267 | --- | rs612169 | NA | 136143442 | A | G | 0.99839 | 0.99764 | 397.73 | 589.42 | 264.85 | 0 | 0.44693 | 0.23373 | 0.039049 | 2.158e-09 |
| 268 | --- | rs144566139 | NA | 136143919 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 269 | --- | chr9:136144000:D | NA | 136144000 | AT | A | 0.98756 | 0.54188 | 1223.5 | 28.432 | 0.053 | 0.001 | 0.011397 | 0.16805 | 0.27756 | 0.54488 |
| 270 | --- | rs8176668 | NA | 136144059 | A | T | 0.99815 | 0.9973 | 611.89 | 523.75 | 116.36 | 0 | 0.3021 | -0.16333 | 0.04312 | 0.00015202 |
| 271 | --- | rs574311 | NA | 136144110 | G | A | 0.99799 | 0.99662 | 83.583 | 461.25 | 707.17 | 0 | 0.25096 | 0.13496 | 0.045414 | 0.0029614 |
| 272 | --- | rs187551277 | NA | 136144172 | G | A | 0.99825 | 0.077245 | 1249.8 | 2.196 | 0 | 0.001 | 0.000877 | ND | ND | ND |
| 273 | --- | rs597988 | NA | 136144284 | T | A | 0.97199 | 0.95467 | 459.93 | 572.81 | 219.24 | 0.019 | 0.40388 | 0.24214 | 0.040417 | 2.0855e-09 |
| 274 | --- | rs597974 | NA | 136144297 | A | G | 0.96877 | 0.94921 | 462.62 | 571.57 | 217.79 | 0.018 | 0.40222 | 0.24298 | 0.040508 | 1.9938e-09 |
| 275 | --- | rs140114497 | NA | 136144308 | T | C | 0.96718 | 0.9468 | 463.77 | 571.11 | 217.11 | 0.017 | 0.40149 | 0.24164 | 0.040583 | 2.6109e-09 |
| 276 | --- | rs576125 | NA | 136144309 | G | A | 0.96718 | 0.94681 | 463.77 | 571.1 | 217.12 | 0.017 | 0.4015 | 0.24163 | 0.040582 | 2.6158e-09 |
| 277 | --- | rs8176663 | NA | 136144427 | T | C | 0.99836 | 0.99757 | 397.61 | 589.5 | 264.89 | 0 | 0.447 | 0.23358 | 0.039052 | 2.2144e-09 |
| 278 | --- | rs8176662 | NA | 136144454 | A | G | 0.99669 | 0.9908 | 874.92 | 341.45 | 35.619 | 0.004 | 0.16481 | 0.39785 | 0.053453 | 9.8386e-14 |
| 279 | --- | rs149899707 | NA | 136144521 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 280 | --- | rs488775 | NA | 136144534 | G | A | 0.9979 | 0.99644 | 83.591 | 461.14 | 707.27 | 0.001 | 0.25093 | 0.13473 | 0.045419 | 0.0030144 |
| 281 | --- | rs66697526 | NA | 136144593 | G | T | 0.99595 | 0.98605 | 958.35 | 272.93 | 20.717 | 0.007 | 0.12554 | -0.02537 | 0.060261 | 0.67375 |
| 282 | --- | rs7036642 | NA | 136144626 | G | A | 0.9981 | 0.99718 | 611.96 | 523.69 | 116.36 | 0 | 0.30208 | -0.16337 | 0.043123 | 0.00015164 |
| 283 | --- | rs8176661 | NA | 136144640 | A | G | 0.99996 | 0.0086711 | 1252 | 0.045 | 0 | 0 | 0 | ND | ND | ND |
| 284 | --- | rs596141 | NA | 136144689 | T | G | 0.99816 | 0.99701 | 79.694 | 461.37 | 710.94 | 0 | 0.24791 | 0.1373 | 0.045782 | 0.002708 |
| 285 | --- | rs146907040 | NA | 136144771 | A | G | 1 | 0.0039984 | 1252 | 0.004 | 0 | 0 | 0 | ND | ND | ND |
| 286 | --- | rs491626 | NA | 136144873 | C | T | 0.99109 | 0.98649 | 411.75 | 583.83 | 256.42 | 0.001 | 0.43797 | 0.19894 | 0.039186 | 3.8392e-07 |
| 287 | --- | rs492488 | NA | 136144960 | G | A | 0.99656 | 0.99462 | 391.81 | 591.2 | 269 | 0 | 0.45095 | 0.2331 | 0.039058 | 2.4003e-09 |
| 288 | --- | rs493246 | NA | 136144994 | G | A | 0.98929 | 0.982 | 384.57 | 593.12 | 274.3 | 0.01 | 0.45596 | 0.23485 | 0.039266 | 2.2184e-09 |
| 289 | --- | rs193238931 | NA | 136145029 | C | T | 0.99979 | 0.10628 | 1251.7 | 0.261 | 0 | 0 | 0.00010423 | ND | ND | ND |
| 290 | --- | rs494242 | NA | 136145118 | C | T | 0.99587 | 0.99328 | 391.13 | 591.58 | 269.29 | 0.001 | 0.45134 | 0.23314 | 0.039088 | 2.4534e-09 |
| 291 | --- | rs495203 | NA | 136145240 | C | T | 0.99587 | 0.99328 | 391.13 | 591.58 | 269.29 | 0.001 | 0.45134 | 0.23314 | 0.039088 | 2.4537e-09 |
| 292 | --- | chr9:136145403:D | NA | 136145403 | AC | A | 0.89421 | 0.82553 | 562.28 | 557.59 | 132.08 | 0.05 | 0.32819 | 0.20554 | 0.047103 | 1.2795e-05 |
| 293 | --- | chr9:136145414:I | NA | 136145414 | C | CA | 0.90476 | 0.60485 | 1022.7 | 217.57 | 11.653 | 0.032 | 0.096197 | 0.37574 | 0.085683 | 1.1587e-05 |
| 294 | --- | chr9:136145418:D | NA | 136145418 | AC | A | 0.88378 | 0.80486 | 584.03 | 533.39 | 134.53 | 0.044 | 0.32048 | 0.17883 | 0.047069 | 0.00014515 |
| 295 | --- | chr9:136145424:D | NA | 136145424 | AC | A | 0.96664 | 0.92861 | 684.01 | 483.64 | 84.323 | 0.03 | 0.2605 | 0.033456 | 0.047087 | 0.47739 |
| 296 | --- | rs9411378 | NA | 136145425 | C | A | 0.96466 | 0.92381 | 684.98 | 482.46 | 84.528 | 0.038 | 0.2602 | 0.035049 | 0.047122 | 0.457 |
| 297 | --- | rs582118 | NA | 136145471 | A | G | 0.99785 | 0.9965 | 392.39 | 591.52 | 268.09 | 0 | 0.45036 | 0.23391 | 0.03908 | 2.1568e-09 |
| 298 | --- | rs582094 | NA | 136145484 | A | T | 0.99785 | 0.9965 | 392.39 | 591.52 | 268.09 | 0 | 0.45036 | 0.23391 | 0.03908 | 2.1568e-09 |
| 299 | --- | rs189022067 | NA | 136145717 | A | G | 0.99986 | 0.035747 | 1251.8 | 0.179 | 0 | 0 | 0 | ND | ND | ND |
| 300 | --- | chr9:136145907:I | NA | 136145907 | G | GA | 0.99609 | 0.99346 | 395.16 | 590.05 | 266.79 | 0.001 | 0.44874 | 0.23502 | 0.039071 | 1.7968e-09 |
| 301 | --- | rs2769071 | NA | 136145974 | A | G | 0.99601 | 0.99357 | 392.38 | 591.18 | 268.44 | 0.004 | 0.4505 | 0.23674 | 0.039157 | 1.4849e-09 |
| 302 | --- | rs147027134 | NA | 136145979 | A | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 303 | --- | rs677355 | NA | 136146046 | G | A | 0.99691 | 0.99484 | 394.01 | 590.7 | 267.29 | 0.003 | 0.44939 | 0.23489 | 0.039079 | 1.8488e-09 |
| 304 | --- | chr9:136146061:I | NA | 136146061 | T | TA | 0.99429 | 0.99034 | 398.01 | 585.8 | 268.18 | 0.009 | 0.44815 | 0.23506 | 0.039103 | 1.8422e-09 |
| 305 | --- | chr9:136146068:I | NA | 136146068 | A | AT | 0.99726 | 0.99542 | 393.77 | 590.73 | 267.49 | 0.005 | 0.44957 | 0.2346 | 0.03907 | 1.9183e-09 |
| 306 | --- | rs676996 | NA | 136146077 | T | G | 0.99628 | 0.99354 | 399.35 | 585.54 | 267.11 | 0.005 | 0.44719 | 0.23275 | 0.039007 | 2.4183e-09 |
| 307 | --- | rs676457 | NA | 136146227 | A | T | 0.99785 | 0.99652 | 393.66 | 590.84 | 267.5 | 0.002 | 0.44962 | 0.23446 | 0.039059 | 1.9414e-09 |
| 308 | --- | rs79343853 | NA | 136146310 | T | C | 0.99653 | 0.99042 | 867.38 | 349.01 | 35.609 | 0.006 | 0.16782 | 0.39565 | 0.05327 | 1.1091e-13 |
| 309 | --- | rs527210 | NA | 136146431 | C | T | 0.99668 | 0.99439 | 399.33 | 585.7 | 266.97 | 0.001 | 0.44714 | 0.23232 | 0.039029 | 2.6396e-09 |
| 310 | --- | chr9:136146448:D | NA | 136146448 | TAAGAC | T | 0.98769 | 0.98377 | 406.78 | 582.92 | 262.29 | 0.011 | 0.44229 | 0.23031 | 0.039126 | 3.9473e-09 |
| 311 | --- | rs675201 | NA | 136146466 | A | G | 0.99409 | 0.98811 | 82.173 | 466.32 | 703.51 | 0.005 | 0.25186 | 0.1329 | 0.045804 | 0.0037135 |
| 312 | --- | rs182739868 | NA | 136146499 | A | G | 0.91465 | 0.6591 | 1001.1 | 240.33 | 10.487 | 0.045 | 0.10436 | 0.16996 | 0.082419 | 0.039189 |
| 313 | --- | rs550057 | NA | 136146597 | C | T | 0.99831 | 0.9969 | 646.08 | 506.91 | 99.016 | 0.001 | 0.28153 | 0.025541 | 0.044212 | 0.56347 |
| 314 | --- | rs674302 | NA | 136146664 | T | A | 0.99861 | 0.99795 | 393.03 | 591.17 | 267.8 | 0 | 0.44999 | 0.23382 | 0.03905 | 2.1272e-09 |
| 315 | --- | rs551100 | NA | 136146740 | T | C | 0.99788 | 0.99613 | 79.842 | 461.53 | 710.62 | 0.001 | 0.24809 | 0.13739 | 0.045783 | 0.0026921 |
| 316 | --- | rs187072196 | NA | 136146756 | C | A | 0.99994 | 0.016025 | 1251.9 | 0.074 | 0 | 0 | 0 | ND | ND | ND |
| 317 | --- | rs191709829 | NA | 136146850 | C | T | 0.9983 | 0.71163 | 1245.5 | 6.497 | 0 | 0 | 0.0025946 | 0.89388 | 0.43059 | 0.037899 |
| 318 | --- | rs663054 | NA | 136146920 | T | G | 0.99796 | 0.99619 | 79.871 | 461.51 | 710.61 | 0.002 | 0.24811 | 0.13736 | 0.045779 | 0.0026948 |
| 319 | --- | rs7046674 | NA | 136147012 | C | T | 0.99716 | 0.99473 | 612.89 | 523.29 | 115.82 | 0.004 | 0.30149 | -0.16392 | 0.043205 | 0.00014828 |
| 320 | --- | rs554833 | NA | 136147160 | C | T | 0.99889 | 0.99822 | 393.07 | 591.1 | 267.83 | 0.001 | 0.44998 | 0.23369 | 0.039045 | 2.1623e-09 |
| 321 | --- | rs8176649 | NA | 136147295 | G | A | 0.99727 | 0.99545 | 634.51 | 508.13 | 109.36 | 0 | 0.29028 | -0.1689 | 0.043519 | 0.00010398 |
| 322 | --- | rs141837362 | NA | 136147453 | T | C | 0.99977 | 0.29192 | 1251.7 | 0.292 | 0 | 0 | 0.00011661 | ND | ND | ND |
| 323 | --- | rs144458168 | NA | 136147539 | T | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 324 | --- | rs660340 | NA | 136147553 | A | G | 0.99831 | 0.99728 | 270.49 | 597.73 | 383.79 | 0 | 0.45475 | 0.22847 | 0.039206 | 5.6276e-09 |
| 325 | --- | chr9:136147630:I | NA | 136147630 | G | GA | 0.99992 | 0.081283 | 1251.9 | 0.1 | 0 | 0 | 0 | ND | ND | ND |
| 326 | --- | rs148402540 | NA | 136147666 | A | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 327 | --- | rs581107 | NA | 136147702 | C | T | 0.99615 | 0.9931 | 265.48 | 596.95 | 389.57 | 0.002 | 0.45044 | 0.23367 | 0.039303 | 2.7612e-09 |
| 328 | --- | rs659104 | NA | 136147823 | T | G | 0.99848 | 0.99754 | 270.5 | 597.71 | 383.79 | 0 | 0.45475 | 0.22838 | 0.039203 | 5.6891e-09 |
| 329 | --- | rs150947224 | NA | 136147988 | T | C | 1 | 0.0009996 | 1252 | 0.001 | 0 | 0 | 0 | ND | ND | ND |
| 330 | --- | rs647800 | NA | 136148000 | A | G | 0.99857 | 0.9977 | 270.5 | 597.71 | 383.79 | 0.002 | 0.45475 | 0.22833 | 0.039201 | 5.7283e-09 |
| 331 | --- | rs473533 | NA | 136148035 | T | C | 0.99828 | 0.99718 | 270.49 | 597.99 | 383.52 | 0.004 | 0.45486 | 0.22862 | 0.039211 | 5.5298e-09 |
| 332 | --- | rs475419 | NA | 136148231 | C | T | 0.99867 | 0.99785 | 270.55 | 597.66 | 383.79 | 0 | 0.45478 | 0.22827 | 0.039197 | 5.7596e-09 |
| 333 | --- | rs476410 | NA | 136148368 | G | C | 0.99854 | 0.99765 | 270.52 | 597.98 | 383.5 | 0.001 | 0.45488 | 0.22849 | 0.039205 | 5.608e-09 |
| 334 | --- | rs645982 | NA | 136148409 | A | G | 0.99883 | 0.99816 | 270.5 | 597.69 | 383.8 | 0 | 0.45475 | 0.22818 | 0.039196 | 5.8326e-09 |
| 335 | rs500498 | rs500498 | NA | 136148647 | T | C | 1 | 1 | 271 | 598 | 383 | 0 | 0.45527 | 0.22834 | 0.039162 | 5.5207e-09 |
| 336 | --- | rs500499 | NA | 136148648 | G | C | 0.99776 | 0.99613 | 276.7 | 607.35 | 367.95 | 0.004 | 0.46356 | 0.23474 | 0.039386 | 2.5227e-09 |
| 337 | --- | rs149135480 | NA | 136148703 | T | A | 0.99985 | 0.018738 | 1251.8 | 0.193 | 0 | 0 | 0 | ND | ND | ND |
| 338 | --- | rs143292918 | NA | 136148765 | G | A | 1 | 0.0009996 | 1252 | 0.001 | 0 | 0 | 0 | ND | ND | ND |
| 339 | --- | chr9:136149095:D | NA | 136149095 | CA | C | 0.98795 | 0.97957 | 417.68 | 594.87 | 239.43 | 0.016 | 0.42881 | 0.25352 | 0.040146 | 2.7024e-10 |
| 340 | --- | rs116552240 | NA | 136149098 | T | A | 0.98795 | 0.97959 | 417.68 | 594.87 | 239.43 | 0.014 | 0.42881 | 0.25351 | 0.040146 | 2.706e-10 |
| 341 | --- | rs8176644 | NA | 136149150 | C | T | 0.99735 | 0.99242 | 867.67 | 349.02 | 35.312 | 0.003 | 0.16759 | 0.39635 | 0.053303 | 1.0397e-13 |
| 342 | --- | rs188675313 | NA | 136149152 | T | C | 0.99998 | 0.005944 | 1252 | 0.021 | 0 | 0 | 0 | ND | ND | ND |
| 343 | rs505922 | rs505922 | NA | 136149229 | T | C | 1 | 1 | 393 | 590 | 269 | 0 | 0.45048 | 0.23278 | 0.038988 | 2.365e-09 |
| 344 | --- | rs507666 | NA | 136149399 | G | A | 0.9981 | 0.99627 | 647.06 | 505.68 | 99.258 | 0.002 | 0.28123 | 0.025847 | 0.044193 | 0.55865 |
| 345 | --- | rs186959044 | NA | 136149400 | G | A | 0.9973 | 0.31509 | 1247.8 | 4.211 | 0 | 0 | 0.0016817 | -0.1227 | 0.73252 | 0.86698 |
| 346 | --- | rs529565 | NA | 136149500 | T | C | 0.99996 | 0.99991 | 392.98 | 591.02 | 268 | 0 | 0.45009 | 0.23294 | 0.039026 | 2.3901e-09 |
| 347 | --- | rs630510 | NA | 136149581 | A | G | 0.99927 | 0.99863 | 170.56 | 545.98 | 535.46 | 0.001 | 0.35427 | 0.11153 | 0.040624 | 0.006045 |
| 348 | --- | chr9:136149709:D | NA | 136149709 | AC | A | 0.99594 | 0.97136 | 1110.5 | 140.35 | 1.126 | 0.002 | 0.056949 | -0.14608 | 0.08835 | 0.098236 |
| 349 | rs630014 | rs630014 | NA | 136149722 | A | G | 1 | 1 | 171 | 546 | 535 | 0 | 0.35463 | 0.11181 | 0.040566 | 0.005846 |
| 350 | --- | rs532436 | NA | 136149830 | G | A | 0.99808 | 0.99626 | 647.09 | 505.65 | 99.259 | 0.004 | 0.28122 | 0.025874 | 0.044193 | 0.55822 |
| 351 | --- | rs8176639 | NA | 136150317 | C | G | 0.99965 | 0.08622 | 1251.6 | 0.434 | 0 | 0 | 0.00017332 | ND | ND | ND |
| 352 | --- | rs8176760 | NA | 136150379 | G | A | 0.9827 | 0.22758 | 1229.2 | 22.622 | 0.129 | 0.006 | 0.0091374 | -0.75191 | 0.3237 | 0.020185 |
| 353 | --- | rs537895 | NA | 136150403 | A | G | 0.97813 | 0.95692 | 97.54 | 473.04 | 681.38 | 0.036 | 0.26683 | 0.13036 | 0.044824 | 0.003634 |
| 354 | --- | rs616154 | NA | 136150466 | C | T | 0.98953 | 0.98563 | 430.7 | 595.98 | 225.31 | 0.004 | 0.41798 | 0.060749 | 0.04004 | 0.12921 |
| 355 | --- | rs559723 | NA | 136150484 | A | G | 0.9905 | 0.98559 | 433.68 | 593.65 | 224.67 | 0.009 | 0.41653 | 0.057549 | 0.040098 | 0.15123 |
| 356 | --- | rs144289739 | NA | 136150522 | C | G | 0.99782 | 0.50843 | 1248.3 | 3.724 | 0 | 0 | 0.0014872 | 0.036687 | 0.58432 | 0.94994 |
| 357 | --- | rs8176638 | NA | 136150556 | C | T | 0.9655 | 0.54407 | 1177.3 | 73.253 | 1.443 | 0.024 | 0.030408 | 0.25521 | 0.15608 | 0.10201 |
| 358 | --- | rs140079020 | NA | 136150809 | C | T | 0.99889 | 0.078057 | 1250.6 | 1.388 | 0 | 0.001 | 0.00055431 | ND | ND | ND |
| 359 | --- | chr9:136150912:I | NA | 136150912 | C | CG | 0.99999 | 0.0096102 | 1252 | 0.013 | 0 | 0 | 0 | ND | ND | ND |
| 360 | --- | rs142995738 | NA | 136151065 | C | G | 0.99533 | 0.69746 | 1237.1 | 14.878 | 0.002 | 0.001 | 0.0059433 | 0.25523 | 0.34052 | 0.45355 |
| 361 | --- | rs190049657 | NA | 136151107 | C | T | 0.99998 | 0.004605 | 1252 | 0.026 | 0 | 0 | 0 | ND | ND | ND |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 362 | --- | rs566183 | NA | 136151198 | A | G | 0.99981 | 0.9996 | 80.003 | 460.79 | 711.21 | 0 | 0.24792 | 0.13644 | 0.045699 | 0.0028311 |
| 363 | rs568203 | rs568203 | NA | 136151445 | A | C | 1 | 1 | 80 | 461 | 711 | 0 | 0.248 | 0.13668 | 0.045696 | 0.0027801 |
| 364 | --- | rs600038 | NA | 136151806 | T | C | 0.99859 | 0.99702 | 647.51 | 505.09 | 99.397 | 0.005 | 0.28111 | 0.026237 | 0.044172 | 0.55254 |
| 365 | --- | rs8176635 | NA | 136152009 | G | A | 0.99781 | 0.99572 | 509.3 | 574.27 | 168.43 | 0 | 0.36387 | 0.093837 | 0.041158 | 0.022611 |
| 366 | --- | rs8176634 | NA | 136152070 | G | C | 0.9989 | 0.99671 | 822.29 | 369.72 | 59.983 | 0.002 | 0.19556 | -0.20037 | 0.048669 | 3.8398e-05 |
| 367 | --- | rs150185195 | NA | 136152286 | C | T | 0.98223 | 0.82631 | 1155.9 | 96.035 | 0.055 | 0.005 | 0.038397 | -0.26446 | 0.11394 | 0.020284 |
| 368 | --- | rs146783421 | NA | 136152336 | A | C | 1 | 0.003398 | 1252 | 0.005 | 0 | 0 | 0 | ND | ND | ND |
| 369 | --- | rs182406156 | NA | 136152347 | C | T | 0.99998 | 0.0061435 | 1252 | 0.026 | 0 | 0 | 0 | ND | ND | ND |
| 370 | --- | rs8176633 | NA | 136152354 | C | T | 0.9965 | 0.99222 | 800.55 | 385.48 | 65.975 | 0 | 0.20664 | -0.19025 | 0.047796 | 6.8784e-05 |
| 371 | --- | rs145690885 | NA | 136152368 | G | A | 0.97486 | 0.40551 | 1210.5 | 41.39 | 0.098 | 0.004 | 0.016608 | -0.090541 | 0.22581 | 0.68845 |
| 372 | --- | rs8176632 | NA | 136152547 | C | T | 0.99758 | 0.99186 | 867.35 | 348.72 | 35.923 | 0.005 | 0.16796 | 0.39646 | 0.053182 | 8.9986e-14 |
| 373 | --- | rs8176631 | NA | 136152594 | C | T | 0.99974 | 0.041108 | 1251.7 | 0.321 | 0 | 0 | 0.00012819 | ND | ND | ND |
| 374 | --- | rs8176630 | NA | 136152722 | C | T | 0.99683 | 0.98398 | 1023.4 | 219.58 | 9.029 | 0.003 | 0.094904 | -0.02347 | 0.069032 | 0.73387 |
| 375 | --- | rs188389911 | NA | 136153355 | G | A | 0.99981 | 0.03951 | 1251.8 | 0.242 | 0 | 0 | 0 | ND | ND | ND |
| 376 | --- | rs663367 | NA | 136153451 | A | G | 0.99777 | 0.99649 | 81.231 | 464.11 | 706.66 | 0 | 0.25023 | 0.13739 | 0.045667 | 0.0026254 |
| 377 | --- | rs552148 | NA | 136153481 | T | C | 0.9846 | 0.97189 | 85.345 | 472.52 | 694.13 | 0.001 | 0.25687 | 0.1407 | 0.045575 | 0.0020211 |
| 378 | --- | rs61696148 | NA | 136153544 | A | T | 0.99658 | 0.98329 | 1026 | 216.96 | 9.047 | 0.001 | 0.093873 | -0.023778 | 0.069321 | 0.73159 |
| 379 | --- | rs141638449 | NA | 136153797 | C | T | 0.99874 | 0.036203 | 1250.4 | 1.576 | 0 | 0 | 0.00062939 | ND | ND | ND |
| 380 | --- | rs651007 | NA | 136153875 | C | T | 0.99996 | 0.9999 | 647.01 | 504.99 | 100 | 0 | 0.28155 | 0.025238 | 0.044093 | 0.56707 |
| 381 | --- | rs11244061 | NA | 136153981 | C | T | 0.99201 | 0.57166 | 1234.7 | 17.302 | 0 | 0 | 0.0069097 | -0.35008 | 0.27863 | 0.20896 |
| 382 | --- | rs187861744 | NA | 136154097 | G | C | 0.99827 | 0.51738 | 1248.4 | 3.554 | 0 | 0 | 0.0014193 | -0.081551 | 0.63951 | 0.89853 |
| 383 | --- | rs579459 | NA | 136154168 | T | C | 0.99997 | 0.99993 | 647.01 | 504.99 | 100 | 0 | 0.28155 | 0.025236 | 0.044093 | 0.56709 |
| 384 | --- | rs9411488 | NA | 136154246 | G | T | 0.99751 | 0.99417 | 805.67 | 381.75 | 64.577 | 0 | 0.20404 | -0.198 | 0.047976 | 3.6737e-05 |
| 385 | --- | rs649129 | NA | 136154304 | C | T | 0.99998 | 0.99995 | 647.01 | 504.99 | 100.01 | 0 | 0.28155 | 0.025229 | 0.044092 | 0.5672 |
| 386 | --- | rs10751504 | NA | 136154433 | G | C | 0.9682 | 0.93236 | 708.84 | 473.58 | 69.535 | 0.044 | 0.24468 | 0.3069 | 0.048743 | 3.0492e-10 |
| 387 | --- | chr9:136154623:D | NA | 136154623 | TC | T | 0.99812 | 0.12397 | 1249.6 | 2.357 | 0 | 0 | 0.00094129 | ND | ND | ND |
| 388 | --- | chr9:136154626:D | NA | 136154626 | CA | C | 0.99812 | 0.12397 | 1249.6 | 2.357 | 0 | 0 | 0.00094129 | ND | ND | ND |
| 389 | --- | rs147375567 | NA | 136154866 | A | G | 0.99898 | 0.50891 | 1249.9 | 2.111 | 0 | 0 | 0.00084305 | -0.36094 | 0.78396 | 0.64523 |
| 390 | rs495828 | rs495828 | NA | 136154867 | G | T | 1 | 1 | 647 | 505 | 100 | 0 | 0.28155 | 0.025236 | 0.044092 | 0.56709 |
| 391 | --- | rs635634 | NA | 136155000 | C | T | 0.99998 | 0.99995 | 647.01 | 504.98 | 100.01 | 0 | 0.28155 | 0.025221 | 0.044092 | 0.56731 |
| 392 | --- | rs12683493 | NA | 136155063 | C | T | 0.99649 | 0.98298 | 1026 | 216.93 | 9.046 | 0.003 | 0.093858 | -0.023794 | 0.069336 | 0.73147 |
| 393 | --- | rs150022816 | NA | 136155093 | G | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 394 | --- | rs13298002 | NA | 136155127 | G | A | 0.99811 | 0.12465 | 1249.6 | 2.365 | 0 | 0 | 0.00094449 | ND | ND | ND |
| 395 | rs500428 | rs500428 | NA | 136155343 | A | G | 1 | 1 | 90 | 474 | 688 | 0 | 0.26118 | 0.1299 | 0.044787 | 0.0037263 |
| 396 | --- | rs7030248 | NA | 136155359 | G | A | 0.99743 | 0.99482 | 692.55 | 484.83 | 74.628 | 0 | 0.25323 | 0.29602 | 0.046352 | 1.6984e-10 |
| 397 | --- | rs9411490 | NA | 136155414 | A | G | 0.99744 | 0.99405 | 805.68 | 381.77 | 64.549 | 0.003 | 0.20402 | -0.19798 | 0.047982 | 3.6893e-05 |
| 398 | --- | rs633862 | NA | 136155444 | C | T | 0.99743 | 0.99608 | 279.07 | 606.76 | 366.17 | 0.002 | 0.46522 | 0.23387 | 0.039386 | 2.8863e-09 |
| 399 | --- | rs502361 | NA | 136155589 | C | G | 0.99994 | 0.99985 | 89.994 | 473.97 | 688.04 | 0 | 0.26116 | 0.12993 | 0.044789 | 0.0037215 |
| 400 | --- | rs9411491 | NA | 136156015 | T | C | 0.99715 | 0.99328 | 805.67 | 381.78 | 64.553 | 0.004 | 0.20403 | -0.19793 | 0.047995 | 3.7235e-05 |
| 401 | --- | rs55988407 | NA | 136156064 | G | A | 0.9809 | 0.47025 | 1218 | 33.835 | 0.149 | 0.003 | 0.013631 | -0.26652 | 0.23535 | 0.25745 |
| 402 | --- | rs9411381 | NA | 136156067 | T | C | 0.99683 | 0.99246 | 805.65 | 381.78 | 64.556 | 0.017 | 0.20403 | -0.19784 | 0.04801 | 3.7758e-05 |
| 403 | --- | rs78590974 | NA | 136156230 | C | T | 0.98471 | 0.47114 | 1226.6 | 25.202 | 0.241 | 0.002 | 0.010257 | 1.0622 | 0.29539 | 0.00032328 |
| 404 | --- | rs142447342 | NA | 136156244 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 405 | --- | rs140502769 | NA | 136156498 | G | A | 0.99999 | 0.0094373 | 1252 | 0.018 | 0 | 0 | 0 | ND | ND | ND |
| 406 | --- | rs144306320 | NA | 136156542 | G | T | 0.999 | 0.013524 | 1250.7 | 1.255 | 0 | 0.001 | 0.0005012 | ND | ND | ND |
| 407 | --- | rs189611925 | NA | 136156672 | G | T | 0.9998 | 0.016521 | 1251.8 | 0.246 | 0 | 0 | 0 | ND | ND | ND |
| 408 | --- | rs557317 | NA | 136157037 | C | A | 0.98391 | 0.9689 | 97.661 | 488.34 | 665.97 | 0.026 | 0.27303 | 0.12273 | 0.044781 | 0.0061314 |
| 409 | --- | rs558240 | NA | 136157133 | G | A | 0.99025 | 0.97154 | 895.23 | 333.18 | 23.573 | 0.012 | 0.15189 | -0.076444 | 0.057078 | 0.18047 |
| 410 | --- | rs138026250 | NA | 136157138 | C | A | 0.99982 | 0.13924 | 1251.8 | 0.224 | 0 | 0 | 0 | ND | ND | ND |
| 411 | --- | rs146149084 | NA | 136157335 | A | G | 0.99998 | 0.011513 | 1252 | 0.023 | 0 | 0 | 0 | ND | ND | ND |
| 412 | --- | rs181316261 | NA | 136157449 | C | T | 0.99919 | 0.14459 | 1251 | 1.009 | 0 | 0 | 0.00040296 | ND | ND | ND |
| 413 | --- | rs7867220 | NA | 136157520 | C | T | 0.99949 | 0.11798 | 1251.4 | 0.64 | 0 | 0 | 0.00025559 | ND | ND | ND |
| 414 | --- | rs183796796 | NA | 136157596 | C | T | 0.99988 | 0.032044 | 1251.8 | 0.154 | 0 | 0 | 0 | ND | ND | ND |
| 415 | --- | rs142673851 | NA | 136157644 | C | T | 0.9994 | 0.14465 | 1251.3 | 0.746 | 0 | 0 | 0.00029792 | ND | ND | ND |
| 416 | --- | rs62574607 | NA | 136157654 | T | C | 0.99069 | 0.87367 | 1181.9 | 67.059 | 3.032 | 0.002 | 0.029203 | 0.040896 | 0.12094 | 0.73525 |
| 417 | --- | rs7867359 | NA | 136157656 | C | G | 0.99945 | 0.12814 | 1251.3 | 0.687 | 0 | 0 | 0.00027436 | ND | ND | ND |
| 418 | --- | rs7853492 | NA | 136157785 | A | T | 0.99945 | 0.14681 | 1251.3 | 0.69 | 0 | 0 | 0.00027556 | ND | ND | ND |
| 419 | --- | rs7867739 | NA | 136157924 | C | T | 0.99942 | 0.15659 | 1251.3 | 0.726 | 0 | 0 | 0.00028994 | ND | ND | ND |
| 420 | --- | rs7867864 | NA | 136158008 | C | G | 0.99936 | 0.15691 | 1251.2 | 0.8 | 0 | 0 | 0.00031949 | ND | ND | ND |
| 421 | --- | rs141952207 | NA | 136158026 | G | C | 0.99996 | 0.008981 | 1252 | 0.048 | 0 | 0 | 0 | ND | ND | ND |
| 422 | --- | rs149863406 | NA | 136158155 | C | T | 0.99918 | 0.013745 | 1251 | 1.032 | 0 | 0 | 0.00041214 | ND | ND | ND |
| 423 | --- | rs28476494 | NA | 136158288 | T | C | 0.99928 | 0.18331 | 1251.1 | 0.9 | 0 | 0 | 0.00035942 | ND | ND | ND |
| 424 | --- | rs7860182 | NA | 136158327 | T | A | 0.98662 | 0.97544 | 98.485 | 491.58 | 661.91 | 0.02 | 0.27499 | 0.13299 | 0.044596 | 0.0028616 |
| 425 | --- | rs28368280 | NA | 136158400 | C | G | 0.99925 | 0.1935 | 1251.1 | 0.942 | 0 | 0 | 0.0003762 | ND | ND | ND |
| 426 | --- | rs184855103 | NA | 136158490 | C | T | 0.99998 | 0.0090575 | 1252 | 0.029 | 0 | 0 | 0 | ND | ND | ND |
| 427 | --- | rs1927311 | NA | 136158544 | T | C | 0.9874 | 0.97617 | 104.32 | 494.88 | 652.79 | 0.01 | 0.28096 | 0.11552 | 0.044112 | 0.0088235 |
| 428 | --- | rs115071869 | NA | 136158862 | G | A | 0.99911 | 0.23694 | 1250.9 | 1.112 | 0 | 0 | 0.00044409 | ND | ND | ND |
| 429 | --- | rs507480 | NA | 136158964 | A | G | 0.99937 | 0.989 | 3 | 59.69 | 1189.3 | 0.001 | 0.026234 | -0.049716 | 0.12077 | 0.68059 |
| 430 | --- | rs507567 | NA | 136158998 | A | G | 0.99705 | 0.38212 | 0.015 | 5.06 | 1246.9 | 0.003 | 0.0020328 | 0.47522 | 0.6297 | 0.45045 |
| 431 | --- | rs509482 | NA | 136159240 | G | A | 0.98604 | 0.96899 | 724.2 | 454.3 | 73.468 | 0.029 | 0.24012 | -0.15394 | 0.047072 | 0.0010746 |
| 432 | --- | rs62574608 | NA | 136159266 | A | G | 0.92354 | 0.50729 | 1110.6 | 135.9 | 5.479 | 0.02 | 0.058652 | -0.089473 | 0.12863 | 0.48669 |
| 433 | --- | chr9:136159268:D | NA | 136159268 | AAGGCC | A | 0.92738 | 0.62775 | 1063.2 | 181.65 | 7.148 | 0.013 | 0.078252 | -0.28584 | 0.096591 | 0.003084 |
| 434 | --- | rs146582653 | NA | 136159450 | G | C | 0.99949 | 0.4148 | 1251.3 | 0.684 | 0 | 0 | 0.00027316 | ND | ND | ND |
| 435 | --- | rs67318122 | NA | 136159538 | A | G | 0.9957 | 0.27916 | 1246.6 | 5.365 | 0.013 | 0 | 0.002153 | -0.064268 | 0.66418 | 0.92291 |
| 436 | --- | rs512179 | NA | 136159540 | C | G | 0.99989 | 0.9997 | 703.95 | 467.03 | 81.018 | 0.001 | 0.25122 | -0.13479 | 0.045602 | 0.0031194 |
| 437 | --- | rs512887 | NA | 136159579 | G | A | 0.9999 | 0.99973 | 703.96 | 467.03 | 81.016 | 0 | 0.25122 | -0.1348 | 0.045602 | 0.003117 |
| 438 | --- | rs535855 | NA | 136159790 | A | G | 0.99996 | 0.99988 | 703.98 | 467.01 | 81.008 | 0 | 0.25121 | -0.13484 | 0.0456 | 0.0031066 |
| 439 | --- | rs535993 | NA | 136159843 | A | G | 0.99996 | 0.99989 | 703.98 | 467.01 | 81.007 | 0 | 0.25121 | -0.13484 | 0.0456 | 0.0031063 |
| 440 | --- | chr9:136159892:I | NA | 136159892 | T | TAA | 0.90366 | 0.70227 | 949 | 287.24 | 15.747 | 0.016 | 0.12729 | -0.048454 | 0.069318 | 0.48454 |
| 441 | --- | chr9:136159896:I | NA | 136159896 | T | TAAAAGAAATAA | 0.90474 | 0.70343 | 954.66 | 281.97 | 15.353 | 0.016 | 0.12487 | -0.055147 | 0.06979 | 0.42942 |
| 442 | --- | rs184760764 | NA | 136160131 | G | A | 0.999 | 0.023915 | 1250.7 | 1.254 | 0 | 0 | 0.0005008 | ND | ND | ND |
| 443 | --- | rs146174278 | NA | 136160165 | G | A | 0.99934 | 0.062768 | 1251.2 | 0.822 | 0 | 0 | 0.00032827 | ND | ND | ND |
| 444 | --- | rs1752338 | NA | 136160185 | C | A | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030973 |
| 445 | --- | rs1633512 | NA | 136160219 | T | C | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030973 |
| 446 | rs1752337 | rs1752337 | NA | 136160228 | T | G | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030973 |
| 447 | --- | rs62574609 | NA | 136160311 | T | C | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030973 |
| 448 | --- | rs62574610 | NA | 136160481 | C | T | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030973 |
| 449 | --- | rs62574611 | NA | 136160538 | G | C | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030973 |
| 450 | --- | rs9411492 | NA | 136160617 | T | C | 0.98128 | 0.97184 | 287.87 | 612.33 | 351.77 | 0.02 | 0.47448 | 0.08636 | 0.039936 | 0.030583 |
| 451 | --- | rs565126 | NA | 136160632 | G | A | 0.99638 | 0.9922 | 701.88 | 468.47 | 81.647 | 0.004 | 0.2523 | -0.13283 | 0.04569 | 0.0036479 |
| 452 | --- | chr9:136160859:I | NA | 136160859 | C | CA | 0.90639 | 0.83416 | 110.21 | 546.6 | 595.11 | 0.084 | 0.30634 | 0.016116 | 0.047749 | 0.73573 |
| 453 | --- | rs567898 | NA | 136160931 | A | G | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030973 |
| 454 | --- | rs568022 | NA | 136160975 | G | C | 0.95943 | 0.90869 | 745.5 | 442.23 | 64.26 | 0.012 | 0.22794 | -0.14115 | 0.050231 | 0.0049545 |
| 455 | --- | rs568975 | NA | 136161074 | G | A | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030973 |
| 456 | --- | rs9411382 | NA | 136161274 | T | C | 0.99999 | 0.99999 | 81.005 | 467 | 704 | 0 | 0.2512 | 0.13488 | 0.045599 | 0.0030967 |
| 457 | --- | rs572651 | NA | 136161469 | C | T | 0.99998 | 0.99994 | 704 | 466.97 | 81.027 | 0 | 0.25121 | -0.13486 | 0.045596 | 0.0030987 |
| 458 | --- | rs572653 | NA | 136161472 | A | G | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030967 |
| 459 | --- | rs139740994 | NA | 136161579 | G | C | 0.99976 | 0.030689 | 1251.7 | 0.296 | 0 | 0 | 0.00011821 | ND | ND | ND |
| 460 | --- | rs11244064 | NA | 136161837 | G | A | 0.98501 | 0.96369 | 803.78 | 411.49 | 36.723 | 0.017 | 0.19367 | 0.018034 | 0.052617 | 0.73179 |
| 461 | rs9411493 | rs9411493 | NA | 136161851 | A | G | 1 | 1 | 102 | 491 | 659 | 0 | 0.27756 | 0.11794 | 0.043869 | 0.0071757 |
| 462 | --- | chr9:136161928:D | NA | 136161928 | TTTC | T | 0.99708 | 0.95666 | 1186.6 | 62.174 | 3.211 | 0.004 | 0.027395 | 0.093779 | 0.12119 | 0.43903 |
| 463 | --- | rs176689 | NA | 136162131 | G | T | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030967 |
| 464 | --- | rs68032997 | NA | 136162255 | T | C | 0.97739 | 0.92826 | 937.61 | 289.88 | 24.48 | 0.03 | 0.13532 | -0.0038677 | 0.059862 | 0.94848 |
| 465 | --- | rs176690 | NA | 136162764 | C | T | 0.99896 | 0.99794 | 705.11 | 466.17 | 80.716 | 0.001 | 0.25064 | -0.13381 | 0.045652 | 0.0033772 |
| 466 | --- | rs117653144 | NA | 136162783 | G | A | 0.99704 | 0.96021 | 1197.7 | 51.31 | 3 | 0.001 | 0.022887 | 0.063115 | 0.13028 | 0.62807 |
| 467 | --- | rs176691 | NA | 136163306 | G | A | 0.98172 | 0.95706 | 798.88 | 415.98 | 37.115 | 0.02 | 0.19578 | 0.017496 | 0.052644 | 0.73963 |
| 468 | --- | rs176692 | NA | 136163329 | A | G | 0.98149 | 0.95645 | 799.21 | 415.7 | 37.067 | 0.017 | 0.19562 | 0.017179 | 0.052671 | 0.7443 |
| 469 | --- | rs10901256 | NA | 136163447 | T | C | 0.97309 | 0.95884 | 317.58 | 609.39 | 325 | 0.034 | 0.49704 | 0.096185 | 0.040216 | 0.01677 |
| 470 | --- | rs10901257 | NA | 136163570 | G | A | 0.98239 | 0.97356 | 286.85 | 612.97 | 352.16 | 0.022 | 0.47392 | 0.087834 | 0.039922 | 0.027796 |
| 471 | --- | rs176693 | NA | 136164001 | C | T | 1 | 0.99999 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030974 |
| 472 | --- | rs150942415 | NA | 136164037 | G | A | 0.99995 | 0.012319 | 1251.9 | 0.064 | 0 | 0 | 0 | ND | ND | ND |
| 473 | --- | rs140667476 | NA | 136164095 | G | T | 0.99989 | 0.01535 | 1251.9 | 0.134 | 0 | 0 | 0 | ND | ND | ND |
| 474 | --- | rs28844968 | NA | 136164427 | A | G | 0.96493 | 0.8298 | 1053.2 | 192.58 | 6.205 | 0.009 | 0.081864 | -0.27585 | 0.079635 | 0.00053222 |
| 475 | --- | rs176694 | NA | 136164593 | T | G | 0.99808 | 0.28579 | 1249.4 | 2.572 | 0 | 0 | 0.0010272 | ND | ND | ND |
| 476 | --- | rs176695 | NA | 136164639 | A | G | 1 | 0.99999 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.0030978 |
| 477 | --- | rs176696 | NA | 136164655 | C | T | 0.99976 | 0.9994 | 102.08 | 491.12 | 658.8 | 0.002 | 0.27767 | 0.11781 | 0.043874 | 0.0072483 |
| 478 | --- | rs13301309 | NA | 136164836 | C | A | 0.99571 | 0.2919 | 1246.6 | 5.36 | 0.013 | 0 | 0.002151 | -0.066651 | 0.66737 | 0.92045 |
| 479 | --- | rs191901590 | NA | 136164922 | T | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 480 | --- | rs176697 | NA | 136165211 | T | C | 0.99859 | 0.99719 | 101.56 | 490.13 | 660.31 | 0.005 | 0.27686 | 0.12035 | 0.04398 | 0.0062101 |
| 481 | --- | rs193010087 | NA | 136165284 | C | T | 0.9993 | 0.14647 | 1251.1 | 0.871 | 0 | 0 | 0.00034784 | ND | ND | ND |
| 482 | --- | rs2519836 | NA | 136165347 | T | C | 1 | 0.0009996 | 0 | 0.001 | 1252 | 0 | 0 | ND | ND | ND |
| 483 | --- | rs182507498 | NA | 136165348 | G | A | 0.99422 | 0.22194 | 1243.9 | 8.078 | 0 | 0.001 | 0.003226 | -0.21131 | 0.48948 | 0.66595 |
| 484 | --- | rs176698 | NA | 136165371 | A | C | 0.99999 | 0.99999 | 704 | 467 | 81 | 0 | 0.2512 | -0.13488 | 0.045599 | 0.003098 |
| 485 | --- | rs145834222 | NA | 136165436 | C | A | 0.99951 | 0.44019 | 1251.3 | 0.726 | 0 | 0 | 0.00028994 | ND | ND | ND |
| 486 | --- | rs187543752 | NA | 136165446 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 487 | --- | rs7020432 | NA | 136165694 | G | A | 0.99559 | 0.28675 | 1246.5 | 5.505 | 0.014 | 0 | 0.0022097 | -0.061356 | 0.65179 | 0.925 |
| 488 | rs7025162 | rs7025162 | NA | 136166346 | C | T | 1 | 1 | 444 | 576 | 232 | 0 | 0.41534 | -0.074571 | 0.03928 | 0.057639 |

* id '---' indicate that these variants were extraporated.

**Table S2. Associations of imputed genotypes in the ABOlocus with ACE in Takahata population.**

| index | id* | rsid | chr | pos | Allele | | average maximum posterior call | info | Genotypes | | | | MAF | beta | SE | P-value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | A | B | | | AA | AB | BB | Null | | | | |
| 1 | --- | rs73562368 | 17 | 136123019 | C | T | 0.99972 | 0.0585888 | 1251.6 | 0.351 | 0 | 0 | 0.00014018 | ND | ND | ND |
| 2 | --- | rs11244049 | 17 | 136123092 | T | C | 0.99546 | 0.98526 | 907.73 | 314.42 | 29.845 | 0.008 | 0.14941 | 0.37435 | 0.05596 | 2.2379e-11 |
| 3 | --- | rs148031614 | 17 | 136123172 | T | C | 0.99928 | 0.25135 | 1251.1 | 0.9 | 0 | 0 | 0.00035942 | ND | ND | ND |
| 4 | --- | rs9328546 | 17 | 136123267 | C | G | 0.93562 | 0.84338 | 838.89 | 376.56 | 36.519 | 0.034 | 0.17956 | -0.4023 | 0.055922 | 6.2907e-13 |
| 5 | --- | rs114204311 | 17 | 136123277 | G | A | 0.99987 | 0.083469 | 1251.8 | 0.166 | 0 | 0 | 0 | ND | ND | ND |
| 6 | --- | rs192446092 | 17 | 136123600 | A | C | 0.9999 | 0.01904 | 1251.9 | 0.131 | 0 | 0 | 0 | ND | ND | ND |
| 7 | --- | rs183830736 | 17 | 136123679 | C | T | 0.99982 | 0.10392 | 1251.8 | 0.221 | 0 | 0 | 0 | ND | ND | ND |
| 8 | --- | rs6597618 | 17 | 136123740 | T | C | 0.99414 | 0.98988 | 459.62 | 583.73 | 208.63 | 0.01 | 0.39976 | -0.12847 | 0.040268 | 0.0014203 |
| 9 | rs4363269 | rs4363269 | 17 | 136123840 | A | G | 1 | 1 | 634 | 517 | 101 | 0 | 0.28714 | -0.39307 | 0.04419 | 5.8492e-19 |
| 10 | --- | rs186098467 | 17 | 136123994 | T | C | 1 | 0.0029988 | 1252 | 0.003 | 0 | 0 | 0 | ND | ND | ND |
| 11 | --- | rs7025839 | 17 | 136124190 | G | A | 0.99694 | 0.99335 | 703.13 | 474.76 | 74.108 | 0.005 | 0.24879 | -0.4253 | 0.046445 | 5.3338e-20 |
| 12 | --- | rs72775410 | 17 | 136124314 | G | A | 0.96768 | 0.3896 | 1204.1 | 47.501 | 0.434 | 0.002 | 0.019317 | 0.079419 | 0.23598 | 0.73645 |
| 13 | --- | rs73562371 | 17 | 136124326 | T | C | 0.99955 | 0.72665 | 1250.2 | 1.76 | 0 | 0 | 0.00070288 | -1.5209 | 0.91603 | 0.096852 |
| 14 | --- | rs9411473 | 17 | 136124399 | G | A | 0.99562 | 0.98996 | 702.96 | 474.93 | 74.095 | 0.021 | 0.24885 | -0.42732 | 0.046516 | 4.0619e-20 |
| 15 | --- | rs9411370 | 17 | 136124432 | A | G | 0.99538 | 0.98938 | 702.97 | 474.94 | 74.071 | 0.015 | 0.24884 | -0.42765 | 0.04653 | 3.8938e-20 |
| 16 | --- | rs78755596 | 17 | 136124590 | T | A | 0.99747 | 0.075064 | 1248.8 | 3.171 | 0 | 0 | 0.0012664 | ND | ND | ND |
| 17 | --- | rs115370344 | 17 | 136124602 | T | G | 0.99982 | 0.017178 | 1251.8 | 0.225 | 0 | 0 | 0 | ND | ND | ND |
| 18 | --- | rs12338026 | 17 | 136124857 | C | G | 0.9993 | 0.58542 | 1250.4 | 1.624 | 0 | 0 | 0.00064856 | ND | ND | ND |
| 19 | --- | rs7047076 | 17 | 136125329 | A | T | 0.989 | 0.97695 | 702.56 | 475.81 | 73.599 | 0.031 | 0.24881 | -0.43591 | 0.04683 | 1.2988e-20 |
| 20 | --- | rs193302481 | 17 | 136125592 | C | T | 1 | 0.0009992 | 1252 | 0.002 | 0 | 0 | 0 | ND | ND | ND |
| 21 | --- | rs9411474 | 17 | 136125716 | C | G | 0.98636 | 0.97321 | 702.37 | 476.16 | 73.432 | 0.031 | 0.24882 | -0.43906 | 0.04693 | 8.3172e-21 |
| 22 | --- | rs61527302 | 17 | 136125994 | G | A | 0.98778 | 0.97299 | 813.69 | 388.96 | 49.337 | 0.007 | 0.19474 | -0.40888 | 0.050613 | 6.5466e-16 |
| 23 | --- | rs191151099 | 17 | 136126026 | T | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 24 | --- | rs10901251 | 17 | 136126129 | A | C | 0.97626 | 0.96443 | 456.22 | 577.46 | 218.27 | 0.044 | 0.40497 | -0.11346 | 0.040487 | 0.0050732 |
| 25 | --- | rs148763789 | 17 | 136126132 | C | T | 0.99999 | 0.0058286 | 1252 | 0.012 | 0 | 0 | 0 | ND | ND | ND |
| 26 | --- | rs188658949 | 17 | 136126153 | G | T | 1 | 0.0019992 | 1252 | 0.002 | 0 | 0 | 0 | ND | ND | ND |
| 27 | --- | rs78320709 | 17 | 136126394 | C | T | 0.989 | 0.49772 | 1231.6 | 20.321 | 0.068 | 0.002 | 0.0081697 | 0.034413 | 0.28827 | 0.90498 |
| 28 | --- | rs34266669 | 17 | 136126495 | C | T | 0.98406 | 0.96903 | 702.47 | 476.4 | 73.112 | 0.022 | 0.24866 | -0.44461 | 0.047076 | 3.5709e-21 |
| 29 | --- | rs151316644 | 17 | 136126625 | G | A | 0.99948 | 0.039007 | 1251.3 | 0.653 | 0 | 0 | 0.00026078 | ND | ND | ND |
| 30 | --- | rs3205136 | 17 | 136126631 | C | A | 0.98673 | 0.96021 | 895.8 | 322.73 | 33.451 | 0.018 | 0.15561 | 0.41364 | 0.055894 | 1.3571e-13 |
| 31 | --- | rs7849280 | 17 | 136126636 | A | G | 0.94202 | 0.87242 | 783.14 | 416.66 | 52.162 | 0.033 | 0.20807 | -0.4348 | 0.052112 | 7.217e-17 |
| 32 | --- | rs116958345 | 17 | 136127122 | A | C | 0.99974 | 0.013815 | 1251.7 | 0.33 | 0 | 0 | 0.00013179 | ND | ND | ND |
| 33 | --- | rs9411475 | 17 | 136127268 | T | C | 0.95823 | 0.92214 | 649.98 | 507.3 | 94.676 | 0.044 | 0.27823 | -0.43752 | 0.046433 | 4.4015e-21 |
| 34 | --- | rs118065674 | 17 | 136127346 | C | T | 0.99999 | 0.0019952 | 1252 | 0.012 | 0 | 0 | 0 | ND | ND | ND |
| 35 | --- | rs12216891 | 17 | 136127366 | C | T | 0.97965 | 0.94627 | 834.13 | 376.17 | 41.661 | 0.04 | 0.18351 | 0.45304 | 0.053218 | 1.6973e-17 |
| 36 | --- | chr9:136127382:I | 17 | 136127382 | A | AGCCTC | 0.99991 | 0.015581 | 1251.9 | 0.115 | 0 | 0 | 0 | ND | ND | ND |
| 37 | --- | rs13291798 | 17 | 136127481 | A | G | 0.99227 | 0.25953 | 1242.2 | 9.761 | 0 | 0.002 | 0.0038982 | -0.28934 | 0.413 | 0.48356 |
| 38 | --- | rs186319566 | 17 | 136127534 | C | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 39 | --- | rs9411476 | 17 | 136127601 | G | A | 0.98081 | 0.95873 | 741.55 | 443.51 | 66.925 | 0.017 | 0.23058 | -0.42418 | 0.047984 | 9.571e-19 |
| 40 | --- | rs34085694 | 17 | 136127605 | C | G | 0.99157 | 0.24806 | 1241.4 | 10.634 | 0.003 | 0.004 | 0.0042492 | -0.35296 | 0.41426 | 0.3942 |
| 41 | --- | rs4962113 | 17 | 136127641 | T | C | 0.90386 | 0.84096 | 575.07 | 543.82 | 133.01 | 0.099 | 0.32345 | 0.10505 | 0.046389 | 0.023539 |
| 42 | --- | rs112134200 | 17 | 136127689 | A | G | 0.99849 | 0.18823 | 1250.1 | 1.89 | 0 | 0 | 0.00075479 | ND | ND | ND |
| 43 | --- | rs146579922 | 17 | 136127736 | C | T | 0.99748 | 0.11506 | 1248.8 | 3.154 | 0 | 0 | 0.0012596 | ND | ND | ND |
| 44 | --- | rs115413527 | 17 | 136127737 | G | A | 0.98845 | 0.26706 | 1236.9 | 15.091 | 0 | 0 | 0.0060268 | -0.91639 | 0.4121 | 0.026168 |
| 45 | --- | rs62574563 | 17 | 136127764 | C | T | 0.96103 | 0.91922 | 675.29 | 484.63 | 92.006 | 0.071 | 0.26704 | 0.091014 | 0.046916 | 0.052387 |
| 46 | --- | rs62574564 | 17 | 136127811 | G | A | 0.96476 | 0.92562 | 683.55 | 482.47 | 85.92 | 0.057 | 0.26132 | 0.081085 | 0.047165 | 0.085579 |
| 47 | --- | rs73660468 | 17 | 136127907 | G | A | 0.99996 | 0.012682 | 1251.9 | 0.054 | 0 | 0 | 0 | ND | ND | ND |
| 48 | --- | rs189931088 | 17 | 136127934 | C | A | 0.99995 | 0.033943 | 1251.9 | 0.058 | 0 | 0 | 0 | ND | ND | ND |
| 49 | --- | rs34039247 | 17 | 136127956 | A | C | 0.99135 | 0.23459 | 1241.2 | 10.828 | 0.001 | 0.001 | 0.0043251 | -0.31627 | 0.40805 | 0.43829 |
| 50 | --- | rs10901252 | 17 | 136128000 | G | C | 0.99201 | 0.97662 | 838.99 | 369.68 | 43.306 | 0.017 | 0.18223 | 0.45201 | 0.052106 | 4.1441e-18 |
| 51 | --- | rs141318395 | 17 | 136128175 | G | A | 0.99976 | 0.008487 | 1251.7 | 0.299 | 0 | 0 | 0.00011941 | ND | ND | ND |
| 52 | --- | rs62574565 | 17 | 136128259 | G | A | 0.98307 | 0.9609 | 706.68 | 467.13 | 78.136 | 0.054 | 0.24897 | 0.084741 | 0.047097 | 0.071975 |
| 53 | --- | rs58081338 | 17 | 136128329 | T | C | 0.98293 | 0.96091 | 705.84 | 467.9 | 78.204 | 0.057 | 0.24933 | 0.084609 | 0.047075 | 0.072283 |
| 54 | --- | rs62574567 | 17 | 136128421 | C | G | 0.98235 | 0.95978 | 706.69 | 467.16 | 78.094 | 0.05 | 0.24895 | 0.084946 | 0.0471 | 0.071302 |
| 55 | --- | rs60484807 | 17 | 136128467 | A | G | 0.98558 | 0.97444 | 425.78 | 609.68 | 216.5 | 0.04 | 0.41642 | 0.36313 | 0.041006 | 8.3212e-19 |
| 56 | --- | rs7857390 | 17 | 136128546 | A | G | 0.97543 | 0.94996 | 111.38 | 510.4 | 630.16 | 0.056 | 0.29281 | -0.014598 | 0.044559 | 0.74321 |
| 57 | --- | rs77693339 | 17 | 136128558 | T | C | 0.99453 | 0.98277 | 868.78 | 348.12 | 35.085 | 0.016 | 0.16705 | 0.51834 | 0.054001 | 8.0937e-22 |
| 58 | --- | rs12554580 | 17 | 136128603 | T | C | 0.9858 | 0.97488 | 425.82 | 609.68 | 216.45 | 0.043 | 0.41639 | 0.36301 | 0.040996 | 8.3948e-19 |
| 59 | --- | rs12554336 | 17 | 136128663 | A | G | 0.96931 | 0.93122 | 719.48 | 460.02 | 72.445 | 0.053 | 0.24159 | 0.092701 | 0.048318 | 0.055043 |
| 60 | --- | rs12554595 | 17 | 136128664 | T | C | 0.96954 | 0.93141 | 720.32 | 459.28 | 72.357 | 0.049 | 0.24122 | 0.092846 | 0.048342 | 0.054783 |
| 61 | --- | rs11244051 | 17 | 136128731 | G | A | 0.99583 | 0.14038 | 1246.8 | 5.212 | 0.003 | 0 | 0.0020839 | ND | ND | ND |
| 62 | --- | rs12554339 | 17 | 136128737 | A | C | 0.98236 | 0.95916 | 705.65 | 467.64 | 78.678 | 0.038 | 0.2496 | 0.084483 | 0.04707 | 0.072679 |
| 63 | --- | rs10901253 | 17 | 136128772 | T | C | 0.98353 | 0.96237 | 706.03 | 467.75 | 78.166 | 0.047 | 0.24924 | 0.08463 | 0.047043 | 0.072019 |
| 64 | --- | rs10751502 | 17 | 136129079 | A | G | 0.98545 | 0.97436 | 425.26 | 609.23 | 217.47 | 0.042 | 0.41701 | 0.36152 | 0.040954 | 1.0705e-18 |
| 65 | --- | rs35698328 | 17 | 136129112 | C | T | 0.99154 | 0.18325 | 1240.6 | 11.35 | 0.009 | 0.007 | 0.00454 | -0.90886 | 0.71079 | 0.20102 |
| 66 | --- | rs10793962 | 17 | 136129115 | A | T | 0.99495 | 0.98413 | 868.71 | 348.23 | 35.047 | 0.011 | 0.16706 | 0.51799 | 0.053964 | 8.0877e-22 |
| 67 | --- | rs11244052 | 17 | 136129125 | C | A | 0.98427 | 0.96382 | 706.97 | 466.93 | 78.048 | 0.053 | 0.24882 | 0.084778 | 0.047033 | 0.071464 |
| 68 | --- | rs11244053 | 17 | 136129360 | A | G | 0.98434 | 0.96435 | 706.28 | 467.59 | 78.091 | 0.038 | 0.24912 | 0.084566 | 0.046998 | 0.071963 |
| 69 | --- | rs4962114 | 17 | 136129611 | G | A | 0.98237 | 0.95956 | 709.96 | 464.38 | 77.611 | 0.05 | 0.24745 | 0.084934 | 0.047145 | 0.07162 |
| 70 | --- | rs4962115 | 17 | 136129642 | T | G | 0.98471 | 0.9653 | 706.4 | 467.49 | 78.071 | 0.04 | 0.24906 | 0.084551 | 0.046976 | 0.071879 |
| 71 | --- | rs8176759 | 17 | 136129647 | G | A | 0.99532 | 0.98533 | 868.68 | 348.31 | 35.003 | 0.015 | 0.16706 | 0.5176 | 0.053932 | 8.2031e-22 |
| 72 | --- | rs1137827 | 17 | 136129715 | C | T | 0.99537 | 0.98551 | 868.67 | 348.32 | 34.997 | 0.015 | 0.16706 | 0.51758 | 0.053928 | 8.1815e-22 |
| 73 | --- | rs4962116 | 17 | 136129716 | G | A | 0.9848 | 0.96551 | 706.42 | 467.47 | 78.062 | 0.048 | 0.24905 | 0.084559 | 0.046971 | 0.071825 |
| 74 | --- | rs188682222 | 17 | 136129731 | G | A | 0.99938 | 0.028384 | 1251.2 | 0.776 | 0 | 0.001 | 0.0003099 | ND | ND | ND |
| 75 | --- | rs8176757 | 17 | 136130012 | A | C | 0.9881 | 0.97928 | 426.23 | 609.66 | 216.07 | 0.034 | 0.41607 | 0.36198 | 0.0409 | 8.7206e-19 |
| 76 | --- | rs117308290 | 17 | 136130382 | G | A | 0.99967 | 0.23179 | 1251.6 | 0.411 | 0 | 0 | 0.00016414 | ND | ND | ND |
| 77 | --- | rs62641783 | 17 | 136130653 | G | C | 0.88545 | 0.59613 | 1003.7 | 236.21 | 12.038 | 0.033 | 0.10395 | 0.16343 | 0.086496 | 0.058827 |
| 78 | --- | rs62641784 | 17 | 136130665 | G | A | 0.91516 | 0.55494 | 1077.8 | 169.01 | 5.2 | 0.024 | 0.07165 | 0.11004 | 0.10586 | 0.29857 |
| 79 | --- | rs62641785 | 17 | 136130669 | T | C | 0.89227 | 0.71802 | 888.33 | 334.16 | 29.466 | 0.048 | 0.15699 | 0.07006 | 0.06539 | 0.28398 |
| 80 | --- | rs62641786 | 17 | 136130677 | T | C | 0.89017 | 0.66483 | 963.82 | 269.33 | 18.851 | 0.005 | 0.12262 | 0.053855 | 0.074194 | 0.46792 |
| 81 | --- | rs184116305 | 17 | 136130686 | C | G | 0.96079 | 0.4347 | 1184.9 | 66.245 | 0.872 | 0.001 | 0.027152 | 0.27136 | 0.19231 | 0.15824 |
| 82 | --- | rs187645401 | 17 | 136130689 | A | G | 0.93208 | 0.52788 | 1119.8 | 128.06 | 4.125 | 0.014 | 0.054437 | 0.022807 | 0.11982 | 0.84904 |
| 83 | --- | rs192412098 | 17 | 136130694 | C | G | 0.94028 | 0.44951 | 1150.2 | 99.31 | 2.445 | 0.012 | 0.041614 | 0.095911 | 0.14612 | 0.51157 |
| 84 | --- | rs62636487 | 17 | 136130702 | C | T | 0.93479 | 0.62416 | 1086.1 | 159 | 6.873 | 0.018 | 0.068988 | -0.013765 | 0.098536 | 0.8889 |
| 85 | --- | rs141472448 | 17 | 136130703 | G | A | 1 | 0.0019992 | 1252 | 0.002 | 0 | 0 | 0 | ND | ND | ND |
| 86 | --- | rs7469795 | 17 | 136130893 | T | C | 0.97592 | 0.96017 | 468.91 | 593.26 | 189.78 | 0.047 | 0.38852 | 0.38122 | 0.041634 | 5.3636e-20 |
| 87 | --- | rs8176751 | 17 | 136131022 | C | T | 0.99942 | 0.99823 | 867.13 | 349.79 | 35.078 | 0.004 | 0.16771 | 0.51329 | 0.053351 | 6.5243e-22 |
| 88 | --- | chr9:136131056:D | 17 | 136131056 | CG | C | 0.99846 | 0.14736 | 1250.1 | 1.921 | 0 | 0.001 | 0.00076717 | ND | ND | ND |
| 89 | --- | rs183748371 | 17 | 136131065 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 90 | rs8176749 | rs8176749 | 17 | 136131188 | C | T | 1 | 1 | 881 | 338 | 33 | 0 | 0.16134 | 0.50652 | 0.054049 | 7.1554e-21 |
| 91 | --- | rs8176748 | 17 | 136131289 | C | T | 0.99751 | 0.99449 | 710.81 | 462.39 | 78.797 | 0.009 | 0.2476 | 0.072408 | 0.046008 | 0.11553 |
| 92 | --- | rs8176747 | 17 | 136131315 | C | G | 0.99997 | 0.99989 | 867.04 | 349.96 | 35 | 0 | 0.16772 | 0.51361 | 0.053316 | 5.7887e-22 |
| 93 | --- | rs41302905 | 17 | 136131316 | C | T | 0.99999 | 0.0058286 | 1252 | 0.012 | 0 | 0 | 0 | ND | ND | ND |
| 94 | rs8176746 | rs8176746 | 17 | 136131322 | G | T | 1 | 1 | 867 | 350 | 35 | 0 | 0.16773 | 0.51365 | 0.053311 | 5.6972e-22 |
| 95 | --- | rs8176745 | 17 | 136131347 | G | A | 0.99765 | 0.99502 | 710.91 | 462.38 | 78.694 | 0.011 | 0.24751 | 0.072484 | 0.046 | 0.11509 |
| 96 | --- | rs8176744 | 17 | 136131350 | G | T | 0.98229 | 0.29554 | 1228.2 | 23.766 | 0.027 | 0 | 0.0095128 | 0.3676 | 0.48119 | 0.44491 |
| 97 | --- | rs8176743 | 17 | 136131415 | C | T | 0.9978 | 0.99462 | 861.32 | 352.08 | 38.607 | 0 | 0.17144 | 0.49413 | 0.0526 | 5.7768e-21 |
| 98 | --- | rs56116432 | 17 | 136131429 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 99 | --- | rs8176742 | 17 | 136131437 | C | T | 0.9935 | 0.98443 | 722.51 | 454.38 | 75.088 | 0.021 | 0.24144 | 0.077379 | 0.046555 | 0.096492 |
| 100 | --- | rs8176741 | 17 | 136131461 | G | A | 0.99775 | 0.9945 | 861.25 | 352.1 | 38.648 | 0.001 | 0.17149 | 0.49389 | 0.052593 | 5.9478e-21 |
| 101 | --- | rs190299333 | 17 | 136131469 | G | A | 0.99712 | 0.096925 | 1248.4 | 3.601 | 0 | 0 | 0.0014381 | ND | ND | ND |
| 102 | --- | rs8176740 | 17 | 136131472 | A | T | 0.99776 | 0.9953 | 718.08 | 456.4 | 77.508 | 0.009 | 0.24418 | 0.076969 | 0.04611 | 0.095066 |
| 103 | --- | rs8176739 | 17 | 136131523 | G | A | 0.9999 | 0.051417 | 1251.9 | 0.121 | 0 | 0 | 0 | ND | ND | ND |
| 104 | --- | rs184446112 | 17 | 136131556 | G | T | 0.99978 | 0.051382 | 1251.7 | 0.272 | 0 | 0 | 0.00010863 | ND | ND | ND |
| 105 | --- | rs55727303 | 17 | 136131576 | C | T | 0.98865 | 0.6437 | 1223.4 | 27.543 | 1.08 | 0 | 0.011862 | -0.014439 | 0.20897 | 0.94492 |
| 106 | --- | rs55687199 | 17 | 136131589 | C | T | 0.99841 | 0.46096 | 1248.5 | 3.488 | 0 | 0.002 | 0.001393 | -0.008709 | 0.67277 | 0.98967 |
| 107 | --- | rs7853989 | 17 | 136131592 | G | C | 0.99774 | 0.99454 | 861.24 | 352.09 | 38.676 | 0 | 0.1715 | 0.49375 | 0.052586 | 6.0358e-21 |
| 108 | --- | rs1053878 | 17 | 136131651 | G | A | 0.99077 | 0.97859 | 758.22 | 425.4 | 68.374 | 0.01 | 0.2245 | -0.43156 | 0.047585 | 1.1981e-19 |
| 109 | --- | rs8176737 | 17 | 136131783 | C | T | 0.99711 | 0.99388 | 717.74 | 456.23 | 78.024 | 0.008 | 0.24452 | 0.077378 | 0.046074 | 0.09307 |
| 110 | --- | rs8176736 | 17 | 136131785 | T | C | 0.99528 | 0.98945 | 720.11 | 454.62 | 77.263 | 0.012 | 0.24327 | 0.077295 | 0.046264 | 0.094773 |
| 111 | --- | rs7873416 | 17 | 136131846 | T | C | 0.99723 | 0.99538 | 428.83 | 606.89 | 216.26 | 0.012 | 0.41511 | 0.35046 | 0.040427 | 4.3643e-18 |
| 112 | --- | rs7855255 | 17 | 136131895 | C | T | 0.99772 | 0.99454 | 861.19 | 352.08 | 38.729 | 0.001 | 0.17154 | 0.49345 | 0.052576 | 6.2617e-21 |
| 113 | --- | rs7873522 | 17 | 136131905 | T | C | 0.99571 | 0.99233 | 427.91 | 606.8 | 217.29 | 0.011 | 0.41589 | 0.3515 | 0.040464 | 3.7329e-18 |
| 114 | --- | rs114820734 | 17 | 136132010 | T | C | 0.99727 | 0.99542 | 428.86 | 606.84 | 216.29 | 0.007 | 0.41511 | 0.3505 | 0.040426 | 4.3153e-18 |
| 115 | --- | rs7873635 | 17 | 136132012 | T | C | 0.9938 | 0.98724 | 110.36 | 513.6 | 628.03 | 0.009 | 0.29326 | -0.027255 | 0.043712 | 0.53295 |
| 116 | --- | rs113209447 | 17 | 136132079 | C | T | 0.9961 | 0.99181 | 719.32 | 456.25 | 76.416 | 0.01 | 0.24325 | 0.077027 | 0.046289 | 0.096105 |
| 117 | --- | rs112685218 | 17 | 136132168 | T | C | 0.99768 | 0.99454 | 861.15 | 352.08 | 38.777 | 0 | 0.17158 | 0.49319 | 0.052566 | 6.4536e-21 |
| 118 | --- | rs181890403 | 17 | 136132205 | G | A | 0.9998 | 0.016255 | 1251.7 | 0.254 | 0 | 0 | 0.00010144 | ND | ND | ND |
| 119 | --- | rs8176732 | 17 | 136132303 | A | G | 0.99383 | 0.98643 | 716.86 | 457.83 | 77.302 | 0.012 | 0.24458 | 0.075442 | 0.046269 | 0.103 |
| 120 | --- | rs8176731 | 17 | 136132350 | T | C | 0.99741 | 0.99567 | 428.81 | 606.82 | 216.35 | 0.015 | 0.41515 | 0.35032 | 0.04042 | 4.4358e-18 |
| 121 | --- | rs2073823 | 17 | 136132516 | G | A | 0.99758 | 0.99453 | 860.98 | 352.1 | 38.922 | 0 | 0.1717 | 0.49238 | 0.052537 | 7.105e-21 |
| 122 | --- | rs8176730 | 17 | 136132525 | T | C | 0.99761 | 0.99463 | 860.99 | 352.07 | 38.936 | 0 | 0.1717 | 0.4923 | 0.052533 | 7.1643e-21 |
| 123 | --- | rs8176728 | 17 | 136132561 | G | C | 0.99785 | 0.99567 | 718.21 | 456.02 | 77.765 | 0.005 | 0.24423 | 0.077216 | 0.046065 | 0.093692 |
| 124 | --- | rs8176727 | 17 | 136132570 | G | A | 0.99823 | 0.99639 | 718.31 | 456.29 | 77.398 | 0.008 | 0.24405 | 0.077354 | 0.046098 | 0.093342 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 125 | --- | rs112655244 | 17 | 136132608 | C | T | 0.99795 | 0.9959 | 718.35 | 455.96 | 77.685 | 0.007 | 0.24414 | 0.077367 | 0.046072 | 0.093104 |
| 126 | --- | rs8176725 | 17 | 136132617 | G | A | 0.99526 | 0.99115 | 721.82 | 446.91 | 83.272 | 0 | 0.24499 | 0.21677 | 0.045652 | 2.0507e-06 |
| 127 | rs2073824 | rs2073824 | 17 | 136132633 | A | G | 1 | 1 | 327 | 609 | 316 | 0 | 0.49561 | 0.22886 | 0.039285 | 5.6917e-09 |
| 128 | --- | rs2073825 | 17 | 136132707 | A | T | 0.99883 | 0.99748 | 718.55 | 456.18 | 77.27 | 0.001 | 0.2439 | 0.077833 | 0.046096 | 0.091316 |
| 129 | --- | rs8176722 | 17 | 136132754 | C | A | 0.99867 | 0.99629 | 860.62 | 351.83 | 39.546 | 0.001 | 0.1721 | 0.4888 | 0.052404 | 1.084e-20 |
| 130 | --- | rs8176721 | 17 | 136132852 | G | A | 0.99934 | 0.062922 | 1251.2 | 0.82 | 0 | 0.001 | 0.00032748 | ND | ND | ND |
| 131 | --- | rs8176720 | 17 | 136132873 | T | C | 0.99964 | 0.9993 | 428.06 | 606.21 | 217.73 | 0 | 0.416 | 0.34913 | 0.04032 | 4.7599e-18 |
| 132 | --- | chr9:136132908:I | 17 | 136132908 | T | TC | 0.99875 | 0.99767 | 387.31 | 595.14 | 269.54 | 0.002 | 0.45297 | -0.087771 | 0.03922 | 0.025227 |
| 133 | --- | rs75179845 | 17 | 136132954 | T | C | 0.99743 | 0.99301 | 862.35 | 350.51 | 39.138 | 0.003 | 0.17124 | 0.488 | 0.052745 | 2.2012e-20 |
| 134 | --- | rs8176718 | 17 | 136132957 | C | T | 0.99986 | 0.99962 | 718.94 | 456.01 | 77.051 | 0 | 0.24365 | 0.078603 | 0.046101 | 0.088188 |
| 135 | --- | rs8176717 | 17 | 136133034 | G | T | 0.99933 | 0.99837 | 719.63 | 455.38 | 76.989 | 0 | 0.24335 | 0.078788 | 0.046125 | 0.087613 |
| 136 | --- | rs8176716 | 17 | 136133065 | G | T | 0.99863 | 0.15653 | 1250.3 | 1.712 | 0 | 0 | 0.00068371 | ND | ND | ND |
| 137 | --- | rs8176715 | 17 | 136133148 | T | C | 0.98802 | 0.97381 | 83.13 | 476.46 | 692.39 | 0.02 | 0.25668 | -0.035566 | 0.045948 | 0.4389 |
| 138 | --- | rs191976170 | 17 | 136133149 | G | A | 0.99921 | 0.24201 | 1251 | 0.989 | 0 | 0 | 0.00039497 | ND | ND | ND |
| 139 | --- | rs8176714 | 17 | 136133178 | G | A | 0.99356 | 0.98601 | 648.13 | 505.84 | 98.016 | 0.01 | 0.2803 | 0.069039 | 0.044583 | 0.12149 |
| 140 | --- | rs115166192 | 17 | 136133218 | C | T | 0.99965 | 0.0086304 | 1251.6 | 0.441 | 0 | 0 | 0.00017612 | ND | ND | ND |
| 141 | --- | rs182985414 | 17 | 136133346 | A | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 142 | --- | chr9:136133380:D | 17 | 136133380 | CGGG | C | 0.99867 | 0.99649 | 76.608 | 455.3 | 720.09 | 0.004 | 0.24302 | -0.07819 | 0.046199 | 0.090558 |
| 143 | --- | rs45610939 | 17 | 136133396 | A | G | 0.9792 | 0.8157 | 1146.1 | 105.73 | 0.204 | 0.003 | 0.042387 | -0.055135 | 0.10946 | 0.61446 |
| 144 | rs512770 | rs512770 | 17 | 136133506 | A | G | 1 | 1 | 77 | 456 | 719 | 0 | 0.24361 | -0.078689 | 0.046104 | 0.087862 |
| 145 | --- | rs4962040 | 17 | 136133531 | A | G | 0.99764 | 0.99606 | 629.73 | 513.26 | 109.01 | 0.008 | 0.29204 | 0.028954 | 0.043672 | 0.50734 |
| 146 | --- | chr9:136133582:D | 17 | 136133582 | AG | A | 0.99258 | 0.98658 | 91.997 | 483.41 | 676.59 | 0.002 | 0.26654 | -0.12006 | 0.045053 | 0.0077009 |
| 147 | --- | rs641959 | 17 | 136133699 | C | A | 0.99758 | 0.99575 | 89.25 | 468.68 | 694.07 | 0.001 | 0.25846 | -0.092724 | 0.045021 | 0.039439 |
| 148 | --- | rs641943 | 17 | 136133714 | G | A | 0.99778 | 0.99624 | 89.165 | 468.59 | 694.24 | 0.001 | 0.25836 | -0.09265 | 0.045023 | 0.039609 |
| 149 | --- | rs514708 | 17 | 136133743 | T | C | 0.99778 | 0.99625 | 89.165 | 468.59 | 694.24 | 0 | 0.25836 | -0.092649 | 0.045023 | 0.039611 |
| 150 | --- | rs517414 | 17 | 136134034 | A | G | 0.9996 | 0.99919 | 80.042 | 459.41 | 712.54 | 0 | 0.2474 | -0.086682 | 0.045827 | 0.058558 |
| 151 | --- | rs9411372 | 17 | 136134068 | G | A | 0.97122 | 0.94646 | 730.07 | 444.16 | 77.763 | 0.012 | 0.23949 | -0.4368 | 0.047436 | 3.3133e-20 |
| 152 | --- | rs138164693 | 17 | 136134118 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 153 | --- | rs638756 | 17 | 136134472 | C | A | 0.99787 | 0.99641 | 89.116 | 468.64 | 694.24 | 0 | 0.25834 | -0.092673 | 0.045026 | 0.039568 |
| 154 | --- | rs191050088 | 17 | 136134650 | C | A | 0.99671 | 0.14604 | 1247.9 | 4.122 | 0 | 0 | 0.0016462 | ND | ND | ND |
| 155 | --- | rs183228393 | 17 | 136134835 | G | A | 1 | 0.0033309 | 1252 | 0.006 | 0 | 0 | 0 | ND | ND | ND |
| 156 | --- | rs626792 | 17 | 136134864 | C | A | 0.93522 | 0.87801 | 103.9 | 510.59 | 637.49 | 0.026 | 0.2869 | -0.051962 | 0.046684 | 0.26568 |
| 157 | --- | rs626035 | 17 | 136134994 | G | T | 0.97273 | 0.94743 | 99.363 | 483.5 | 669.14 | 0.006 | 0.27245 | -0.1037 | 0.045359 | 0.022244 |
| 158 | --- | rs547495 | 17 | 136134995 | C | T | 0.97273 | 0.94743 | 99.363 | 483.49 | 669.14 | 0.006 | 0.27245 | -0.1037 | 0.045359 | 0.022241 |
| 159 | --- | rs547643 | 17 | 136135047 | T | C | 1 | 1 | 80.001 | 459 | 713 | 0 | 0.2472 | -0.085481 | 0.045802 | 0.061997 |
| 160 | --- | rs625593 | 17 | 136135096 | A | G | 0.99998 | 0.99995 | 80.002 | 459.02 | 712.98 | 0 | 0.24721 | -0.085472 | 0.045802 | 0.062026 |
| 161 | --- | rs8176707 | 17 | 136135108 | G | T | 0.9361 | 0.7539 | 1021.6 | 214.61 | 15.814 | 0.015 | 0.098338 | -0.045788 | 0.075941 | 0.54655 |
| 162 | --- | chr9:136135137:D | 17 | 136135137 | GCTTCTGTCCACAC | G | 0.98818 | 0.97538 | 85.311 | 466.49 | 700.19 | 0.007 | 0.25444 | -0.077415 | 0.045792 | 0.09092 |
| 163 | --- | rs138374634 | 17 | 136135194 | G | A | 0.99916 | 0.84615 | 1246.3 | 5.664 | 0 | 0 | 0.002262 | -0.049472 | 0.43827 | 0.91013 |
| 164 | --- | rs549331 | 17 | 136135195 | G | C | 0.99799 | 0.99664 | 89.053 | 468.71 | 694.24 | 0 | 0.25831 | -0.092707 | 0.045029 | 0.039509 |
| 165 | --- | rs549443 | 17 | 136135237 | A | G | 0.89151 | 0.7955 | 120.08 | 528.79 | 603.05 | 0.085 | 0.30711 | -0.13429 | 0.048546 | 0.0056698 |
| 166 | --- | rs549446 | 17 | 136135238 | T | C | 0.88939 | 0.79851 | 130.45 | 531.66 | 589.83 | 0.055 | 0.31653 | -0.13087 | 0.047747 | 0.0061278 |
| 167 | --- | rs149279023 | 17 | 136135321 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 168 | --- | rs624601 | 17 | 136135365 | A | G | 0.99799 | 0.99664 | 89.053 | 468.71 | 694.24 | 0 | 0.25831 | -0.092707 | 0.045029 | 0.039509 |
| 169 | --- | rs551322 | 17 | 136135444 | G | A | 1 | 1 | 80 | 459 | 713 | 0 | 0.2472 | -0.085481 | 0.045802 | 0.061997 |
| 170 | --- | rs192192638 | 17 | 136135445 | C | T | 0.96586 | 0.37961 | 1202.7 | 49.017 | 0.258 | 0.008 | 0.019782 | 1.0383 | 0.26064 | 6.7827e-05 |
| 171 | --- | rs188088103 | 17 | 136135472 | C | T | 0.99846 | 0.029421 | 1250.1 | 1.927 | 0 | 0.002 | 0.00076957 | ND | ND | ND |
| 172 | --- | rs613423 | 17 | 136135478 | A | G | 1 | 1 | 80 | 459 | 713 | 0 | 0.2472 | -0.085481 | 0.045802 | 0.061997 |
| 173 | --- | rs8176704 | 17 | 136135552 | G | A | 0.99874 | 0.1339 | 1250.4 | 1.574 | 0 | 0 | 0.00062859 | ND | ND | ND |
| 174 | --- | chr9:136135625:D | 17 | 136135625 | CTG | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 175 | rs574347 | rs574347 | 17 | 136135659 | C | T | 1 | 1 | 80 | 459 | 713 | 0 | 0.2472 | -0.085481 | 0.045802 | 0.061997 |
| 176 | --- | rs575259 | 17 | 136135752 | G | A | 0.99798 | 0.99664 | 89.052 | 468.71 | 694.24 | 0.001 | 0.25831 | -0.092713 | 0.045029 | 0.039497 |
| 177 | --- | rs8176703 | 17 | 136135863 | G | T | 0.99894 | 0.21781 | 1250.7 | 1.35 | 0 | 0 | 0.00053914 | ND | ND | ND |
| 178 | --- | rs8176702 | 17 | 136136146 | G | A | 0.9983 | 0.99712 | 630.2 | 512.79 | 109.01 | 0.001 | 0.29186 | 0.029119 | 0.043645 | 0.50466 |
| 179 | --- | rs579483 | 17 | 136136196 | A | T | 0.99999 | 0.99998 | 80 | 459.01 | 712.99 | 0 | 0.24721 | -0.085506 | 0.045803 | 0.061924 |
| 180 | --- | rs579622 | 17 | 136136242 | A | G | 0.99999 | 0.99997 | 80 | 459.01 | 712.99 | 0 | 0.24721 | -0.085508 | 0.045803 | 0.061918 |
| 181 | --- | rs140166545 | 17 | 136136367 | C | T | 0.99989 | 0.058102 | 1251.9 | 0.137 | 0 | 0 | 0 | ND | ND | ND |
| 182 | --- | rs493211 | 17 | 136136516 | A | G | 0.99977 | 0.9994 | 79.938 | 459.06 | 713 | 0.002 | 0.24718 | -0.085489 | 0.045825 | 0.062106 |
| 183 | --- | rs8176698 | 17 | 136136593 | T | C | 0.9993 | 0.065935 | 1251.1 | 0.874 | 0 | 0 | 0.00034904 | ND | ND | ND |
| 184 | --- | rs688976 | 17 | 136136770 | A | C | 0.99996 | 0.99989 | 80.015 | 459.02 | 712.96 | 0 | 0.24722 | -0.08554 | 0.045802 | 0.06182 |
| 185 | --- | rs8176696 | 17 | 136136773 | C | T | 0.9993 | 0.065935 | 1251.1 | 0.874 | 0 | 0 | 0.00034904 | ND | ND | ND |
| 186 | --- | rs2073826 | 17 | 136136963 | G | T | 0.99779 | 0.99642 | 629.42 | 513.48 | 109.1 | 0.002 | 0.2922 | 0.029354 | 0.043658 | 0.50135 |
| 187 | --- | rs112565602 | 17 | 136137050 | G | A | 0.9982 | 0.21075 | 1249.7 | 2.259 | 0 | 0 | 0.00090216 | ND | ND | ND |
| 188 | --- | rs687621 | 17 | 136137065 | A | G | 0.99796 | 0.99735 | 378.17 | 594.14 | 279.69 | 0.002 | 0.46067 | -0.085673 | 0.03911 | 0.028483 |
| 189 | --- | rs184686147 | 17 | 136137088 | G | A | 0.99996 | 0.020119 | 1252 | 0.044 | 0 | 0 | 0 | ND | ND | ND |
| 190 | --- | rs687289 | 17 | 136137106 | G | A | 0.99985 | 0.99973 | 393.1 | 591.97 | 266.92 | 0 | 0.44961 | -0.093509 | 0.039153 | 0.016926 |
| 191 | --- | rs2073827 | 17 | 136137133 | G | C | 1 | 1 | 609 | 527 | 116 | 0 | 0.30312 | 0.037734 | 0.043232 | 0.38275 |
| 192 | rs2073828 | rs2073828 | 17 | 136137140 | G | A | 1 | 1 | 609 | 527 | 116 | 0 | 0.30312 | 0.037734 | 0.043232 | 0.38275 |
| 193 | --- | rs189048957 | 17 | 136137228 | G | A | 0.99997 | 0.019153 | 1252 | 0.036 | 0 | 0 | 0 | ND | ND | ND |
| 194 | --- | rs150021186 | 17 | 136137293 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 195 | --- | rs77513793 | 17 | 136137296 | T | C | 0.99874 | 0.38576 | 1249.6 | 2.428 | 0 | 0 | 0.00096965 | ND | ND | ND |
| 196 | --- | chr9:136137375:I | 17 | 136137375 | A | AT | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 197 | --- | rs55876802 | 17 | 136137547 | C | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 198 | --- | rs143174772 | 17 | 136137600 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 199 | --- | rs151155628 | 17 | 136137641 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 200 | rs8176694 | rs8176694 | 17 | 136137646 | T | C | 1 | 1 | 963 | 273 | 16 | 0 | 0.12181 | 0.086651 | 0.061457 | 0.15855 |
| 201 | --- | rs8176693 | 17 | 136137657 | C | T | 0.99885 | 0.99686 | 867.98 | 346.46 | 37.558 | 0.001 | 0.16836 | 0.48719 | 0.052926 | 3.409e-20 |
| 202 | --- | rs673578 | 17 | 136137857 | G | T | 0.99739 | 0.99552 | 88.963 | 468.74 | 694.3 | 0.001 | 0.25825 | -0.092876 | 0.045057 | 0.039275 |
| 203 | --- | rs8176692 | 17 | 136137937 | T | C | 0.99811 | 0.9461 | 1225.3 | 25.718 | 0.996 | 0.001 | 0.011066 | 0.17829 | 0.18916 | 0.34594 |
| 204 | --- | rs145090216 | 17 | 136138074 | A | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 205 | --- | rs672316 | 17 | 136138125 | G | T | 0.99727 | 0.99545 | 88.942 | 468.68 | 694.38 | 0.002 | 0.25821 | -0.09287 | 0.04506 | 0.039303 |
| 206 | --- | rs8176691 | 17 | 136138229 | C | T | 0.99753 | 0.99578 | 629.41 | 513.17 | 109.41 | 0.002 | 0.29233 | 0.029205 | 0.043636 | 0.50332 |
| 207 | --- | rs8176690 | 17 | 136138317 | A | G | 0.99914 | 0.99846 | 608.21 | 527.37 | 116.42 | 0.002 | 0.3036 | 0.037849 | 0.043227 | 0.38126 |
| 208 | --- | rs189530394 | 17 | 136138484 | A | C | 0.99787 | 0.18975 | 1249.3 | 2.673 | 0 | 0 | 0.0010675 | ND | ND | ND |
| 209 | --- | chr9:136138557:I | 17 | 136138557 | A | AT | 0.97855 | 0.32172 | 1219 | 32.845 | 0.161 | 0.019 | 0.013246 | -0.37308 | 0.30051 | 0.21442 |
| 210 | --- | rs8176688 | 17 | 136138583 | C | T | 0.99895 | 0.22039 | 1250.7 | 1.332 | 0 | 0 | 0.00053195 | ND | ND | ND |
| 211 | --- | chr9:136138765:D | 17 | 136138765 | GCGCCCACCACTA | G | 0.99123 | 0.93635 | 1118.2 | 132.71 | 1.127 | 0.007 | 0.053901 | -0.35689 | 0.092517 | 0.00011454 |
| 212 | --- | rs8176686 | 17 | 136138776 | T | C | 0.96729 | 0.93963 | 624.46 | 519.27 | 108.25 | 0.02 | 0.29384 | 0.047067 | 0.045054 | 0.29618 |
| 213 | --- | rs186003835 | 17 | 136138804 | G | A | 0.99905 | 0.092474 | 1250.8 | 1.188 | 0.002 | 0 | 0.00047604 | ND | ND | ND |
| 214 | --- | rs8176684 | 17 | 136138874 | G | A | 0.99907 | 0.058687 | 1250.8 | 1.165 | 0 | 0.001 | 0.00046526 | ND | ND | ND |
| 215 | --- | rs147279040 | 17 | 136138978 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 216 | --- | rs140783133 | 17 | 136139110 | A | C | 0.99943 | 0.0989 | 1251.3 | 0.714 | 0 | 0 | 0.00028514 | ND | ND | ND |
| 217 | --- | rs147622835 | 17 | 136139238 | G | A | 0.98897 | 0.66567 | 1221 | 29.835 | 1.121 | 0.003 | 0.01281 | -0.019081 | 0.19989 | 0.92395 |
| 218 | rs657152 | rs657152 | 17 | 136139265 | C | A | 1 | 1 | 400 | 601 | 251 | 0 | 0.4405 | -0.11187 | 0.039583 | 0.0047109 |
| 219 | --- | rs8176682 | 17 | 136139297 | C | T | 0.99739 | 0.99546 | 616.32 | 520.13 | 115.55 | 0.001 | 0.30001 | 0.046254 | 0.043285 | 0.28525 |
| 220 | --- | rs139568229 | 17 | 136139383 | G | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 221 | --- | rs149756392 | 17 | 136139395 | G | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 222 | --- | rs145595975 | 17 | 136139460 | G | A | 0.99811 | 0.94713 | 1225.3 | 25.67 | 0.998 | 0.001 | 0.011049 | 0.17856 | 0.18914 | 0.34513 |
| 223 | --- | rs148824570 | 17 | 136139589 | C | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 224 | --- | rs474279 | 17 | 136139617 | T | C | 0.99886 | 0.99784 | 81.091 | 458.96 | 711.95 | 0 | 0.24806 | -0.086789 | 0.045736 | 0.05775 |
| 225 | --- | rs146458069 | 17 | 136139672 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 226 | --- | rs8176765 | 17 | 136139694 | A | C | 0.9988 | 0.36712 | 1249.9 | 2.121 | 0 | 0 | 0.00084704 | ND | ND | ND |
| 227 | --- | rs191325486 | 17 | 136139702 | G | A | 0.99482 | 0.30152 | 1244.5 | 7.535 | 0.001 | 0 | 0.00301 | -0.32817 | 0.55801 | 0.55646 |
| 228 | --- | rs8176681 | 17 | 136139754 | T | C | 0.99692 | 0.99523 | 615.6 | 520.78 | 115.62 | 0.001 | 0.30033 | 0.046591 | 0.043282 | 0.28172 |
| 229 | --- | rs144649415 | 17 | 136139775 | G | T | 0.99323 | 0.9169 | 1164.4 | 83.111 | 4.491 | 0.009 | 0.036779 | -0.025694 | 0.10571 | 0.80796 |
| 230 | --- | rs141515001 | 17 | 136139833 | T | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 231 | --- | chr9:136139907:D | 17 | 136139907 | GAAACTGCC | G | 0.99662 | 0.9925 | 649.03 | 505.2 | 97.761 | 0.004 | 0.27984 | -0.46331 | 0.044479 | 2.0858e-25 |
| 232 | --- | rs186048848 | 17 | 136140035 | G | A | 0.9977 | 0.11318 | 1249.1 | 2.875 | 0 | 0 | 0.0011482 | ND | ND | ND |
| 233 | --- | rs1633513 | 17 | 136140462 | C | T | 0.99669 | 0.99412 | 90.333 | 468.89 | 692.78 | 0 | 0.25941 | -0.093092 | 0.04497 | 0.038442 |
| 234 | --- | rs149567216 | 17 | 136140469 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 235 | --- | rs1633514 | 17 | 136140513 | T | C | 0.99827 | 0.99689 | 81.247 | 458.84 | 711.91 | 0 | 0.24814 | -0.085837 | 0.045753 | 0.06064 |
| 236 | --- | rs143159728 | 17 | 136140613 | T | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 237 | --- | rs115325682 | 17 | 136140759 | G | A | 0.99914 | 0.4883 | 1250.1 | 1.943 | 0 | 0 | 0.00077596 | ND | ND | ND |
| 238 | --- | rs1752339 | 17 | 136141135 | C | T | 0.99063 | 0.98026 | 81.109 | 449.2 | 721.69 | 0.006 | 0.24418 | -0.08876 | 0.046057 | 0.053954 |
| 239 | --- | rs142141716 | 17 | 136141226 | G | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 240 | --- | rs13299342 | 17 | 136141504 | G | A | 0.99527 | 0.98648 | 872.75 | 342.77 | 36.481 | 0.003 | 0.16603 | 0.47865 | 0.053521 | 3.7761e-19 |
| 241 | --- | rs2519093 | 17 | 136141870 | C | T | 0.99806 | 0.99625 | 647.5 | 505.95 | 98.545 | 0.004 | 0.28077 | -0.46247 | 0.044343 | 1.8217e-25 |
| 242 | --- | rs144140881 | 17 | 136141877 | G | T | 1 | 0.0059976 | 1252 | 0.006 | 0 | 0 | 0 | ND | ND | ND |
| 243 | --- | rs113423093 | 17 | 136142000 | G | C | 0.96439 | 0.93239 | 103.39 | 487.25 | 661.33 | 0.03 | 0.27718 | -0.090103 | 0.04523 | 0.046358 |
| 244 | --- | rs8176672 | 17 | 136142185 | C | T | 0.99786 | 0.99415 | 874.05 | 341.66 | 36.29 | 0.001 | 0.16543 | 0.48038 | 0.053372 | 2.245e-19 |
| 245 | --- | rs514659 | 17 | 136142203 | A | C | 0.99836 | 0.99762 | 397.73 | 589.42 | 264.85 | 0 | 0.44693 | -0.10224 | 0.03916 | 0.0090332 |
| 246 | --- | rs644234 | 17 | 136142217 | T | G | 0.99837 | 0.99763 | 397.73 | 589.42 | 264.85 | 0 | 0.44693 | -0.10225 | 0.03916 | 0.009027 |
| 247 | --- | rs182705402 | 17 | 136142293 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 248 | --- | rs140796254 | 17 | 136142304 | A | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 249 | --- | rs8176671 | 17 | 136142313 | A | C | 0.9968 | 0.99114 | 874.8 | 341.48 | 35.716 | 0.002 | 0.1649 | 0.4812 | 0.053612 | 2.8219e-19 |
| 250 | --- | rs143309559 | 17 | 136142339 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 251 | --- | rs643434 | 17 | 136142355 | G | A | 0.99816 | 0.99722 | 397.68 | 589.26 | 265.06 | 0.001 | 0.44704 | -0.10231 | 0.039158 | 0.0089809 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 252 | --- | rs8176669 | 17 | 136142463 | A | C | 0.99711 | 0.99461 | 707.9 | 460.87 | 83.226 | 0.005 | 0.25053 | 0.09383 | 0.045625 | 0.039729 |
| 253 | --- | rs148987354 | 17 | 136142465 | G | A | 0.9999 | 0.020262 | 1251.9 | 0.128 | 0 | 0 | 0 | ND | ND | ND |
| 254 | --- | chr9:136142521:I | 17 | 136142521 | C | CT | 0.99487 | 0.89609 | 1204.1 | 47.878 | 0 | 0.004 | 0.019121 | -0.50178 | 0.15256 | 0.0010056 |
| 255 | --- | chr9:136142540:I | 17 | 136142540 | T | TTG | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 256 | --- | rs143746661 | 17 | 136142711 | A | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 257 | --- | rs187821258 | 17 | 136142968 | T | C | 0.99742 | 0.11314 | 1248.8 | 3.226 | 0 | 0 | 0.0012883 | ND | ND | ND |
| 258 | --- | rs543040 | 17 | 136143000 | A | T | 0.99582 | 0.9934 | 396.75 | 589.54 | 265.71 | 0.001 | 0.44767 | -0.10259 | 0.039183 | 0.0088412 |
| 259 | --- | rs146903770 | 17 | 136143055 | A | G | 0.99111 | 0.28893 | 1240.3 | 11.683 | 0 | 0 | 0.0046657 | -1.2328 | 0.50413 | 0.014472 |
| 260 | --- | rs613534 | 17 | 136143120 | A | G | 0.99583 | 0.99385 | 399.27 | 589.45 | 263.29 | 0.001 | 0.4457 | -0.10427 | 0.039263 | 0.007913 |
| 261 | --- | rs543968 | 17 | 136143121 | T | C | 0.99437 | 0.9912 | 400.49 | 588.95 | 262.56 | 0.002 | 0.44492 | -0.10659 | 0.039365 | 0.0067754 |
| 262 | --- | rs139081859 | 17 | 136143192 | G | T | 0.99825 | 0.077245 | 1249.8 | 2.196 | 0 | 0.001 | 0.000877 | ND | ND | ND |
| 263 | --- | rs544873 | 17 | 136143212 | G | A | 0.99502 | 0.9917 | 402.45 | 586.52 | 263.02 | 0 | 0.44432 | -0.10442 | 0.039194 | 0.0077153 |
| 264 | --- | rs142956930 | 17 | 136143330 | A | G | 0.99889 | 0.098024 | 1250.6 | 1.391 | 0 | 0 | 0.00055551 | ND | ND | ND |
| 265 | --- | rs545971 | 17 | 136143372 | C | T | 0.99838 | 0.99763 | 397.73 | 589.42 | 264.85 | 0 | 0.44693 | -0.10225 | 0.039161 | 0.0090282 |
| 266 | --- | rs138194969 | 17 | 136143391 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 267 | --- | rs612169 | 17 | 136143442 | A | G | 0.99839 | 0.99764 | 397.73 | 589.42 | 264.85 | 0 | 0.44693 | -0.10225 | 0.03916 | 0.0090285 |
| 268 | --- | rs144566139 | 17 | 136143919 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 269 | --- | chr9:136144000:D | 17 | 136144000 | AT | A | 0.98756 | 0.54188 | 1223.5 | 28.432 | 0.053 | 0.001 | 0.011397 | 0.41596 | 0.25184 | 0.098597 |
| 270 | --- | rs8176668 | 17 | 136144059 | A | T | 0.99815 | 0.9973 | 611.89 | 523.75 | 116.36 | 0 | 0.3021 | 0.039923 | 0.043211 | 0.35553 |
| 271 | --- | rs574311 | 17 | 136144110 | G | A | 0.99799 | 0.99662 | 83.583 | 461.25 | 707.17 | 0 | 0.25096 | -0.093923 | 0.045539 | 0.039165 |
| 272 | --- | rs187551277 | 17 | 136144172 | G | A | 0.99825 | 0.077245 | 1249.8 | 2.196 | 0 | 0.001 | 0.000877 | ND | ND | ND |
| 273 | --- | rs597988 | 17 | 136144284 | T | A | 0.97199 | 0.95467 | 459.93 | 572.81 | 219.24 | 0.019 | 0.40388 | -0.092999 | 0.040572 | 0.021895 |
| 274 | --- | rs597974 | 17 | 136144297 | A | G | 0.96877 | 0.94921 | 462.62 | 571.57 | 217.79 | 0.018 | 0.40222 | -0.093592 | 0.040683 | 0.021418 |
| 275 | --- | rs140114497 | 17 | 136144308 | T | C | 0.96718 | 0.9468 | 463.77 | 571.11 | 217.11 | 0.017 | 0.40149 | -0.096203 | 0.040787 | 0.01834 |
| 276 | --- | rs576125 | 17 | 136144309 | G | A | 0.96718 | 0.94681 | 463.77 | 571.1 | 217.12 | 0.017 | 0.4015 | -0.0962 | 0.040786 | 0.018343 |
| 277 | --- | rs8176663 | 17 | 136144427 | T | C | 0.99836 | 0.99757 | 397.61 | 589.5 | 264.89 | 0 | 0.447 | -0.10235 | 0.039164 | 0.0089644 |
| 278 | --- | rs8176662 | 17 | 136144454 | A | G | 0.99669 | 0.9908 | 874.92 | 341.45 | 35.619 | 0.004 | 0.16481 | 0.48185 | 0.053637 | 2.6219e-19 |
| 279 | --- | rs149899707 | 17 | 136144521 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 280 | --- | rs488775 | 17 | 136144534 | G | A | 0.9979 | 0.99644 | 83.591 | 461.14 | 707.27 | 0.001 | 0.25093 | -0.094063 | 0.045543 | 0.038888 |
| 281 | --- | rs66697526 | 17 | 136144593 | G | T | 0.99595 | 0.98605 | 958.35 | 272.93 | 20.717 | 0.007 | 0.12554 | 0.061971 | 0.060295 | 0.30405 |
| 282 | --- | rs70036642 | 17 | 136144626 | G | A | 0.9981 | 0.99718 | 611.96 | 523.69 | 116.36 | 0 | 0.30208 | 0.039927 | 0.043211 | 0.35549 |
| 283 | --- | rs8176661 | 17 | 136144640 | A | G | 0.99996 | 0.0086711 | 1252 | 0.045 | 0 | 0 | 0 | ND | ND | ND |
| 284 | --- | rs596141 | 17 | 136144689 | T | G | 0.99816 | 0.99701 | 79.694 | 461.37 | 710.94 | 0 | 0.24791 | -0.083621 | 0.045896 | 0.068458 |
| 285 | --- | rs146907040 | 17 | 136144771 | A | G | 1 | 0.0039984 | 1252 | 0.004 | 0 | 0 | 0 | ND | ND | ND |
| 286 | --- | rs491626 | 17 | 136144873 | C | T | 0.99109 | 0.98649 | 411.75 | 583.83 | 256.42 | 0.001 | 0.43797 | -0.11815 | 0.039366 | 0.0026882 |
| 287 | --- | rs492488 | 17 | 136144960 | G | A | 0.99656 | 0.99462 | 391.81 | 591.2 | 269 | 0 | 0.45095 | -0.094233 | 0.039206 | 0.016237 |
| 288 | --- | rs493246 | 17 | 136144994 | G | A | 0.98929 | 0.982 | 384.57 | 593.12 | 274.3 | 0.01 | 0.45596 | -0.097317 | 0.039427 | 0.013576 |
| 289 | --- | rs193238931 | 17 | 136145029 | C | T | 0.99979 | 0.10628 | 1251.7 | 0.261 | 0 | 0 | 0.00010423 | ND | ND | ND |
| 290 | --- | rs494242 | 17 | 136145118 | C | T | 0.99587 | 0.99328 | 391.13 | 591.58 | 269.29 | 0.001 | 0.45134 | -0.094149 | 0.039245 | 0.016439 |
| 291 | --- | rs495203 | 17 | 136145240 | C | T | 0.99587 | 0.99328 | 391.13 | 591.58 | 269.29 | 0.001 | 0.45134 | -0.094146 | 0.039244 | 0.016441 |
| 292 | --- | chr9:136145403:D | 17 | 136145403 | AC | A | 0.89421 | 0.82553 | 562.28 | 557.59 | 132.08 | 0.05 | 0.32819 | -0.27512 | 0.047402 | 6.4719e-09 |
| 293 | --- | chr9:136145414:I | 17 | 136145414 | C | CA | 0.90476 | 0.60485 | 1022.7 | 217.57 | 11.653 | 0.032 | 0.096197 | 0.53079 | 0.090195 | 3.9815e-09 |
| 294 | --- | chr9:136145418:D | 17 | 136145418 | AC | A | 0.88378 | 0.80486 | 584.03 | 533.39 | 134.53 | 0.044 | 0.32048 | -0.22009 | 0.047346 | 3.3413e-06 |
| 295 | --- | chr9:136145424:D | 17 | 136145424 | AC | A | 0.96664 | 0.92861 | 684.01 | 483.64 | 84.323 | 0.03 | 0.2605 | -0.46783 | 0.04682 | 1.6535e-23 |
| 296 | --- | rs9411378 | 17 | 136145425 | C | A | 0.96466 | 0.92381 | 684.98 | 482.46 | 84.528 | 0.038 | 0.2602 | -0.46476 | 0.046865 | 3.5102e-23 |
| 297 | --- | rs582118 | 17 | 136145471 | A | G | 0.99785 | 0.9965 | 392.39 | 591.52 | 268.09 | 0 | 0.45036 | -0.093554 | 0.039192 | 0.016983 |
| 298 | --- | rs582094 | 17 | 136145484 | A | T | 0.99785 | 0.9965 | 392.39 | 591.52 | 268.09 | 0 | 0.45036 | -0.093554 | 0.039192 | 0.016983 |
| 299 | --- | rs189022067 | 17 | 136145717 | A | G | 0.99986 | 0.035747 | 1251.8 | 0.179 | 0 | 0 | 0 | ND | ND | ND |
| 300 | --- | chr9:136145907:I | 17 | 136145907 | G | GA | 0.99609 | 0.99346 | 395.16 | 590.05 | 266.79 | 0.001 | 0.44874 | -0.092758 | 0.03919 | 0.017939 |
| 301 | --- | rs2769071 | 17 | 136145974 | A | G | 0.99601 | 0.99357 | 392.38 | 591.18 | 268.44 | 0.004 | 0.4505 | -0.09383 | 0.039183 | 0.016635 |
| 302 | --- | rs147027134 | 17 | 136145979 | A | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 303 | --- | rs677355 | 17 | 136146046 | G | A | 0.99691 | 0.99484 | 394.01 | 590.7 | 267.29 | 0.003 | 0.44939 | -0.093172 | 0.039196 | 0.017449 |
| 304 | --- | chr9:136146061:I | 17 | 136146061 | T | TA | 0.99429 | 0.99034 | 398.01 | 585.8 | 268.18 | 0.009 | 0.44815 | -0.096895 | 0.039108 | 0.013225 |
| 305 | --- | chr9:136146068:I | 17 | 136146068 | A | AT | 0.99726 | 0.99542 | 393.77 | 590.73 | 267.49 | 0.005 | 0.44957 | -0.093428 | 0.039176 | 0.017087 |
| 306 | --- | rs676996 | 17 | 136146077 | T | G | 0.99628 | 0.99354 | 399.35 | 585.54 | 267.11 | 0.005 | 0.44719 | -0.096516 | 0.039087 | 0.01354 |
| 307 | --- | rs676457 | 17 | 136146227 | A | T | 0.99785 | 0.99652 | 393.66 | 590.84 | 267.5 | 0.002 | 0.44962 | -0.093485 | 0.039164 | 0.016985 |
| 308 | --- | rs79343853 | 17 | 136146310 | T | C | 0.99653 | 0.99042 | 867.38 | 349.01 | 35.609 | 0.006 | 0.16782 | 0.49488 | 0.053462 | 2.1116e-20 |
| 309 | --- | rs527210 | 17 | 136146431 | C | T | 0.99668 | 0.99439 | 399.33 | 585.7 | 266.97 | 0.001 | 0.44714 | -0.095837 | 0.039105 | 0.014254 |
| 310 | --- | chr9:136146448:D | 17 | 136146448 | TAAGAC | T | 0.98769 | 0.98377 | 406.78 | 582.92 | 262.29 | 0.011 | 0.44229 | -0.10486 | 0.039277 | 0.007592 |
| 311 | --- | rs675201 | 17 | 136146466 | A | G | 0.99409 | 0.98811 | 82.173 | 466.32 | 703.51 | 0.005 | 0.25186 | -0.095002 | 0.045949 | 0.038682 |
| 312 | --- | rs182739868 | 17 | 136146499 | A | G | 0.91465 | 0.6591 | 1001.1 | 240.33 | 10.487 | 0.045 | 0.10436 | -0.0047794 | 0.082899 | 0.95403 |
| 313 | --- | rs550057 | 17 | 136146597 | C | T | 0.99831 | 0.9969 | 646.08 | 506.91 | 99.016 | 0.001 | 0.28153 | -0.46233 | 0.044317 | 1.7678e-25 |
| 314 | --- | rs674302 | 17 | 136146664 | T | A | 0.99861 | 0.99795 | 393.03 | 591.17 | 267.8 | 0 | 0.44999 | -0.093631 | 0.039154 | 0.016786 |
| 315 | --- | rs551100 | 17 | 136146740 | T | C | 0.99788 | 0.99613 | 79.842 | 461.53 | 710.62 | 0.001 | 0.24809 | -0.083565 | 0.045895 | 0.068641 |
| 316 | --- | rs187072196 | 17 | 136146756 | C | A | 0.99994 | 0.016025 | 1251.9 | 0.074 | 0 | 0 | 0 | ND | ND | ND |
| 317 | --- | rs191709829 | 17 | 136146850 | C | T | 0.9983 | 0.71163 | 1245.5 | 6.497 | 0 | 0 | 0.0025946 | 0.56353 | 0.44106 | 0.20137 |
| 318 | --- | rs663054 | 17 | 136146920 | T | G | 0.99796 | 0.99619 | 79.871 | 461.51 | 710.61 | 0.002 | 0.24811 | -0.083391 | 0.045889 | 0.069184 |
| 319 | --- | rs7046674 | 17 | 136147012 | C | T | 0.99716 | 0.99473 | 612.89 | 523.29 | 115.82 | 0.004 | 0.30149 | 0.040452 | 0.043295 | 0.35012 |
| 320 | --- | rs554833 | 17 | 136147160 | C | T | 0.99889 | 0.99822 | 393.07 | 591.1 | 267.83 | 0.001 | 0.44998 | -0.093501 | 0.039145 | 0.016913 |
| 321 | --- | rs8176649 | 17 | 136147295 | G | A | 0.99727 | 0.99545 | 634.51 | 508.13 | 109.36 | 0 | 0.29028 | 0.031708 | 0.043596 | 0.46704 |
| 322 | --- | rs141837362 | 17 | 136147453 | T | C | 0.99977 | 0.29192 | 1251.7 | 0.292 | 0 | 0 | 0.00011661 | ND | ND | ND |
| 323 | --- | rs144458168 | 17 | 136147539 | T | C | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 324 | --- | rs660340 | 17 | 136147553 | A | G | 0.99831 | 0.99728 | 270.49 | 597.73 | 383.79 | 0 | 0.45475 | -0.078192 | 0.039294 | 0.046601 |
| 325 | --- | chr9:136147630:I | 17 | 136147630 | G | GA | 0.99992 | 0.081283 | 1251.9 | 0.1 | 0 | 0 | 0 | ND | ND | ND |
| 326 | --- | rs148402540 | 17 | 136147666 | A | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 327 | --- | rs581107 | 17 | 136147702 | C | T | 0.99615 | 0.9931 | 265.48 | 596.95 | 389.57 | 0.002 | 0.45044 | -0.076468 | 0.039396 | 0.052255 |
| 328 | --- | rs659104 | 17 | 136147823 | T | G | 0.99848 | 0.99754 | 270.5 | 597.71 | 383.79 | 0 | 0.45475 | -0.078122 | 0.039289 | 0.04677 |
| 329 | --- | rs150947224 | 17 | 136147988 | T | C | 1 | 0.0009996 | 1252 | 0.001 | 0 | 0 | 0 | ND | ND | ND |
| 330 | --- | rs647800 | 17 | 136148000 | A | G | 0.99857 | 0.9977 | 270.5 | 597.71 | 383.79 | 0.002 | 0.45475 | -0.07808 | 0.039287 | 0.046875 |
| 331 | --- | rs473533 | 17 | 136148035 | T | C | 0.99828 | 0.99718 | 270.49 | 597.99 | 383.52 | 0.004 | 0.45486 | -0.078021 | 0.039299 | 0.047109 |
| 332 | --- | rs475419 | 17 | 136148231 | C | T | 0.99867 | 0.99785 | 270.55 | 597.66 | 383.79 | 0 | 0.45478 | -0.078008 | 0.039281 | 0.047046 |
| 333 | --- | rs476410 | 17 | 136148368 | G | C | 0.99854 | 0.99765 | 270.52 | 597.98 | 383.5 | 0.001 | 0.45488 | -0.077914 | 0.039289 | 0.047356 |
| 334 | --- | rs645982 | 17 | 136148409 | A | G | 0.99883 | 0.99816 | 270.5 | 597.69 | 383.8 | 0 | 0.45475 | -0.077955 | 0.039278 | 0.04718 |
| 335 | rs500498 | rs500498 | 17 | 136148647 | T | C | 1 | 1 | 271 | 598 | 383 | 0 | 0.45527 | -0.078134 | 0.039252 | 0.046527 |
| 336 | --- | rs500499 | 17 | 136148648 | G | C | 0.99776 | 0.99613 | 276.7 | 607.35 | 367.95 | 0.004 | 0.46356 | -0.093388 | 0.039504 | 0.018079 |
| 337 | --- | rs149135480 | 17 | 136148703 | T | A | 0.99985 | 0.018738 | 1251.8 | 0.193 | 0 | 0 | 0 | ND | ND | ND |
| 338 | --- | rs143292918 | 17 | 136148765 | G | A | 1 | 0.0009996 | 1252 | 0.001 | 0 | 0 | 0 | ND | ND | ND |
| 339 | --- | chr9:136149095:D | 17 | 136149095 | CA | C | 0.98795 | 0.97957 | 417.68 | 594.87 | 239.43 | 0.016 | 0.42881 | -0.059622 | 0.039999 | 0.13607 |
| 340 | --- | rs116552240 | 17 | 136149098 | T | A | 0.98795 | 0.97959 | 417.68 | 594.87 | 239.43 | 0.014 | 0.42881 | -0.059621 | 0.039999 | 0.13607 |
| 341 | --- | rs8176644 | 17 | 136149150 | C | T | 0.99735 | 0.99242 | 867.67 | 349.02 | 35.312 | 0.003 | 0.16759 | 0.49636 | 0.053482 | 1.6808e-20 |
| 342 | --- | rs188675313 | 17 | 136149152 | T | C | 0.99998 | 0.005944 | 1252 | 0.021 | 0 | 0 | 0 | ND | ND | ND |
| 343 | rs505922 | rs505922 | 17 | 136149229 | T | C | 1 | 1 | 393 | 590 | 269 | 0 | 0.45048 | -0.093823 | 0.039078 | 0.016355 |
| 344 | --- | rs507666 | 17 | 136149399 | G | A | 0.9981 | 0.99627 | 647.06 | 505.68 | 99.258 | 0.002 | 0.28123 | -0.46225 | 0.044289 | 1.6813e-25 |
| 345 | --- | rs186959044 | 17 | 136149400 | G | A | 0.9973 | 0.31509 | 1247.8 | 4.211 | 0 | 0 | 0.0016817 | -0.11501 | 1.092 | 0.91612 |
| 346 | --- | rs529565 | 17 | 136149500 | T | C | 0.99996 | 0.99991 | 392.98 | 591.02 | 268 | 0 | 0.45009 | -0.093149 | 0.039116 | 0.01725 |
| 347 | --- | rs630510 | 17 | 136149581 | A | G | 0.99927 | 0.99863 | 170.56 | 545.98 | 535.46 | 0.001 | 0.35427 | -0.088794 | 0.040697 | 0.029121 |
| 348 | --- | chr9:136149709:D | 17 | 136149709 | AC | A | 0.99594 | 0.97136 | 1110.5 | 140.35 | 1.126 | 0.002 | 0.056949 | -0.34739 | 0.089164 | 9.7741e-05 |
| 349 | rs630014 | rs630014 | 17 | 136149722 | A | G | 1 | 1 | 171 | 546 | 535 | 0 | 0.35463 | -0.08832 | 0.040659 | 0.02984 |
| 350 | --- | rs532436 | 17 | 136149830 | G | A | 0.99808 | 0.99626 | 647.09 | 505.65 | 99.259 | 0.004 | 0.28122 | -0.46229 | 0.044289 | 1.6631e-25 |
| 351 | --- | rs8176639 | 17 | 136150317 | C | G | 0.99965 | 0.08622 | 1251.6 | 0.434 | 0 | 0 | 0.00017332 | ND | ND | ND |
| 352 | --- | rs8176760 | 17 | 136150379 | G | A | 0.9827 | 0.22758 | 1229.2 | 22.622 | 0.129 | 0.006 | 0.0091374 | -0.020973 | 0.40913 | 0.95912 |
| 353 | --- | rs537895 | 17 | 136150403 | A | G | 0.97813 | 0.95692 | 97.54 | 473.04 | 681.38 | 0.036 | 0.26683 | -0.032909 | 0.045139 | 0.46597 |
| 354 | --- | rs616154 | 17 | 136150466 | C | T | 0.98953 | 0.98563 | 430.7 | 595.98 | 225.31 | 0.004 | 0.41798 | 0.21997 | 0.04023 | 4.5551e-08 |
| 355 | --- | rs559723 | 17 | 136150484 | A | G | 0.9905 | 0.98559 | 433.68 | 593.65 | 224.67 | 0.009 | 0.41653 | 0.21595 | 0.040348 | 8.687e-08 |
| 356 | --- | rs144289739 | 17 | 136150522 | C | G | 0.99782 | 0.50843 | 1248.3 | 3.724 | 0 | 0 | 0.0014872 | 0.98139 | 0.96362 | 0.21812 |
| 357 | --- | rs8176638 | 17 | 136150556 | C | T | 0.9655 | 0.54407 | 1177.3 | 73.253 | 1.443 | 0.024 | 0.030408 | 0.6064 | 0.16252 | 0.00019051 |
| 358 | --- | rs140079020 | 17 | 136150809 | C | T | 0.99889 | 0.078057 | 1250.6 | 1.388 | 0 | 0.001 | 0.00055431 | ND | ND | ND |
| 359 | --- | chr9:136150912:I | 17 | 136150912 | C | CG | 0.99999 | 0.0096102 | 1252 | 0.013 | 0 | 0 | 0 | ND | ND | ND |
| 360 | --- | rs142995738 | 17 | 136151065 | C | G | 0.99533 | 0.69746 | 1237.1 | 14.878 | 0.002 | 0.001 | 0.0059433 | -0.23342 | 0.28963 | 0.42028 |
| 361 | --- | rs190049657 | 17 | 136151107 | C | T | 0.99998 | 0.004605 | 1252 | 0.026 | 0 | 0 | 0 | ND | ND | ND |
| 362 | --- | rs566183 | 17 | 136151198 | A | G | 0.99981 | 0.9996 | 80.003 | 460.79 | 711.21 | 0 | 0.24792 | -0.081051 | 0.045805 | 0.076815 |
| 363 | rs568203 | rs568203 | 17 | 136151445 | A | C | 1 | 1 | 80 | 461 | 711 | 0 | 0.248 | -0.081362 | 0.045801 | 0.075662 |
| 364 | --- | rs600038 | 17 | 136151806 | T | C | 0.99859 | 0.99702 | 647.51 | 505.09 | 99.397 | 0.005 | 0.28111 | -0.46281 | 0.044268 | 1.3914e-25 |
| 365 | --- | rs8176635 | 17 | 136152009 | G | A | 0.99781 | 0.99572 | 509.3 | 574.27 | 168.43 | 0 | 0.36387 | 0.30993 | 0.041281 | 6.0158e-14 |
| 366 | --- | rs8176634 | 17 | 136152070 | G | C | 0.9989 | 0.99671 | 822.29 | 369.72 | 59.983 | 0.002 | 0.19556 | 0.017997 | 0.048815 | 0.71237 |
| 367 | --- | rs150185195 | 17 | 136152286 | C | T | 0.98223 | 0.82631 | 1155.9 | 96.035 | 0.055 | 0.005 | 0.038397 | -0.085406 | 0.1143 | 0.45494 |
| 368 | --- | rs146783421 | 17 | 136152336 | A | C | 1 | 0.003398 | 1252 | 0.005 | 0 | 0 | 0 | ND | ND | ND |
| 369 | --- | rs182406156 | 17 | 136152347 | C | T | 0.99998 | 0.0061435 | 1252 | 0.026 | 0 | 0 | 0 | ND | ND | ND |
| 370 | --- | rs8176633 | 17 | 136152354 | C | T | 0.9965 | 0.99222 | 800.55 | 385.48 | 65.975 | 0 | 0.20664 | 0.029077 | 0.047933 | 0.5441 |
| 371 | --- | rs145690885 | 17 | 136152368 | G | A | 0.97486 | 0.40551 | 1210.5 | 41.39 | 0.098 | 0.004 | 0.016608 | 0.24507 | 0.22969 | 0.28598 |
| 372 | --- | rs8176632 | 17 | 136152547 | C | T | 0.99758 | 0.99186 | 867.35 | 348.72 | 35.923 | 0.005 | 0.16796 | 0.49687 | 0.05342 | 1.388e-20 |
| 373 | --- | rs8176631 | 17 | 136152594 | C | T | 0.99974 | 0.041108 | 1251.7 | 0.321 | 0 | 0 | 0.00012819 | ND | ND | ND |
| 374 | --- | rs8176630 | 17 | 136152722 | C | T | 0.99683 | 0.98398 | 1023.4 | 219.58 | 9.029 | 0.003 | 0.094904 | 0.053482 | 0.069485 | 0.44148 |
| 375 | --- | rs188389911 | 17 | 136153355 | G | A | 0.99981 | 0.03951 | 1251.8 | 0.242 | 0 | 0 | 0 | ND | ND | ND |
| 376 | --- | rs663367 | 17 | 136153451 | A | G | 0.99777 | 0.99649 | 81.231 | 464.11 | 706.66 | 0 | 0.25023 | -0.079597 | 0.045747 | 0.081872 |
| 377 | --- | rs552148 | 17 | 136153481 | T | C | 0.9846 | 0.97189 | 85.345 | 472.52 | 694.13 | 0.001 | 0.25687 | -0.073316 | 0.045666 | 0.10838 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 378 | --- | rs61696148 | 17 | 136153544 | A | T | 0.99658 | 0.98329 | 1026 | 216.96 | 9.047 | 0.001 | 0.093873 | 0.059061 | 0.069996 | 0.39879 |
| 379 | --- | rs141638449 | 17 | 136153797 | C | T | 0.99874 | 0.036203 | 1250.4 | 1.576 | 0 | 0 | 0.00062939 | ND | ND | ND |
| 380 | --- | rs651007 | 17 | 136153875 | C | T | 0.99996 | 0.9999 | 647.01 | 504.99 | 100 | 0 | 0.28155 | -0.46236 | 0.044194 | 1.2925e-25 |
| 381 | --- | rs11244061 | 17 | 136153981 | C | T | 0.99201 | 0.57166 | 1234.7 | 17.302 | 0 | 0 | 0.0069097 | -0.47242 | 0.30302 | 0.11898 |
| 382 | --- | rs187861744 | 17 | 136154097 | G | C | 0.99827 | 0.51738 | 1248.4 | 3.554 | 0 | 0 | 0.0014193 | 4.8627 | 1.0473 | 0.0001943 |
| 383 | --- | rs579459 | 17 | 136154168 | T | C | 0.99997 | 0.99993 | 647.01 | 504.99 | 100 | 0 | 0.28155 | -0.46236 | 0.044194 | 1.2893e-25 |
| 384 | --- | rs9411488 | 17 | 136154246 | G | T | 0.99751 | 0.99417 | 805.67 | 381.75 | 64.577 | 0 | 0.20404 | 0.040535 | 0.048138 | 0.39975 |
| 385 | --- | rs649129 | 17 | 136154304 | C | T | 0.99998 | 0.99995 | 647.01 | 504.99 | 100.01 | 0 | 0.28155 | -0.46236 | 0.044193 | 1.2891e-25 |
| 386 | --- | rs10751504 | 17 | 136154433 | G | C | 0.9682 | 0.93236 | 708.84 | 473.58 | 69.535 | 0.044 | 0.24468 | 0.38052 | 0.049077 | 8.9352e-15 |
| 387 | --- | chr9:136154623:D | 17 | 136154623 | TC | T | 0.99812 | 0.12397 | 1249.6 | 2.357 | 0 | 0 | 0.00094129 | ND | ND | ND |
| 388 | --- | chr9:136154626:D | 17 | 136154626 | CA | C | 0.99812 | 0.12397 | 1249.6 | 2.357 | 0 | 0 | 0.00094129 | ND | ND | ND |
| 389 | --- | rs147375567 | 17 | 136154866 | A | G | 0.99898 | 0.50891 | 1249.9 | 2.111 | 0 | 0 | 0.00084305 | -0.24873 | 1.0283 | 0.80887 |
| 390 | rs495828 | rs495828 | 17 | 136154867 | G | T | 1 | 1 | 647 | 505 | 100 | 0 | 0.28155 | -0.46238 | 0.044194 | 1.283e-25 |
| 391 | --- | rs635634 | 17 | 136155000 | C | T | 0.99998 | 0.99995 | 647.01 | 504.98 | 100.01 | 0 | 0.28155 | -0.46236 | 0.044193 | 1.288e-25 |
| 392 | --- | rs12683493 | 17 | 136155063 | C | T | 0.99649 | 0.98298 | 1026 | 216.93 | 9.046 | 0.003 | 0.093858 | 0.05928 | 0.07002 | 0.39721 |
| 393 | --- | rs150022816 | 17 | 136155093 | G | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 394 | --- | rs13298002 | 17 | 136155127 | G | A | 0.99811 | 0.12465 | 1249.6 | 2.365 | 0 | 0 | 0.00094449 | ND | ND | ND |
| 395 | rs500428 | rs500428 | 17 | 136155343 | A | G | 1 | 1 | 90 | 474 | 688 | 0 | 0.26118 | -0.086892 | 0.04489 | 0.052908 |
| 396 | --- | rs7030248 | 17 | 136155359 | G | A | 0.99743 | 0.99482 | 692.55 | 484.83 | 74.628 | 0 | 0.25323 | 0.38089 | 0.046505 | 2.6058e-16 |
| 397 | --- | rs9411490 | 17 | 136155414 | A | G | 0.99744 | 0.99405 | 805.68 | 381.77 | 64.549 | 0.003 | 0.20402 | 0.040483 | 0.048145 | 0.40043 |
| 398 | --- | rs633862 | 17 | 136155444 | C | T | 0.99743 | 0.99608 | 279.07 | 606.76 | 366.17 | 0.002 | 0.46522 | -0.094595 | 0.039506 | 0.016647 |
| 399 | --- | rs502361 | 17 | 136155589 | C | G | 0.99994 | 0.99985 | 89.994 | 473.97 | 688.04 | 0 | 0.26116 | -0.086917 | 0.044892 | 0.052853 |
| 400 | --- | rs9411491 | 17 | 136156015 | T | C | 0.99715 | 0.99328 | 805.67 | 381.78 | 64.553 | 0.004 | 0.20403 | 0.040355 | 0.048159 | 0.40206 |
| 401 | --- | rs55988407 | 17 | 136156064 | G | A | 0.9809 | 0.47025 | 1218 | 33.835 | 0.149 | 0.003 | 0.013631 | 0.44056 | 0.24649 | 0.073883 |
| 402 | --- | rs9411381 | 17 | 136156067 | T | C | 0.99683 | 0.99246 | 805.65 | 381.78 | 64.556 | 0.017 | 0.20403 | 0.040234 | 0.048177 | 0.40365 |
| 403 | --- | rs78590974 | 17 | 136156230 | C | T | 0.98471 | 0.47114 | 1226.6 | 25.202 | 0.241 | 0.002 | 0.010257 | 2.0613 | 0.3907 | 1.3213e-07 |
| 404 | --- | rs142447342 | 17 | 136156244 | G | A | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 405 | --- | rs140502769 | 17 | 136156498 | G | A | 0.99999 | 0.0094373 | 1252 | 0.018 | 0 | 0 | 0 | ND | ND | ND |
| 406 | --- | rs144306320 | 17 | 136156542 | G | T | 0.999 | 0.013524 | 1250.7 | 1.255 | 0 | 0.001 | 0.0005012 | ND | ND | ND |
| 407 | --- | rs189611925 | 17 | 136156672 | G | T | 0.9998 | 0.016521 | 1251.8 | 0.246 | 0 | 0 | 0 | ND | ND | ND |
| 408 | --- | rs557317 | 17 | 136157037 | C | A | 0.98391 | 0.9689 | 97.661 | 488.34 | 665.97 | 0.026 | 0.27303 | -0.09539 | 0.045036 | 0.034167 |
| 409 | --- | rs558240 | 17 | 136157133 | G | A | 0.99025 | 0.97154 | 895.23 | 333.18 | 23.573 | 0.012 | 0.15189 | -0.10138 | 0.057695 | 0.078881 |
| 410 | --- | rs138026250 | 17 | 136157138 | C | A | 0.99982 | 0.13924 | 1251.8 | 0.224 | 0 | 0 | 0 | ND | ND | ND |
| 411 | --- | rs146149084 | 17 | 136157335 | A | G | 0.99998 | 0.011513 | 1252 | 0.023 | 0 | 0 | 0 | ND | ND | ND |
| 412 | --- | rs181316261 | 17 | 136157449 | C | T | 0.99919 | 0.14459 | 1251 | 1.009 | 0 | 0 | 0.00040296 | ND | ND | ND |
| 413 | --- | rs7867220 | 17 | 136157520 | C | T | 0.99949 | 0.11798 | 1251.4 | 0.64 | 0 | 0 | 0.00025559 | ND | ND | ND |
| 414 | --- | rs183796796 | 17 | 136157596 | C | T | 0.99988 | 0.032044 | 1251.8 | 0.154 | 0 | 0 | 0 | ND | ND | ND |
| 415 | --- | rs142673851 | 17 | 136157644 | C | T | 0.9994 | 0.14465 | 1251.3 | 0.746 | 0 | 0 | 0.00029792 | ND | ND | ND |
| 416 | --- | rs62574607 | 17 | 136157654 | T | C | 0.99069 | 0.87367 | 1181.9 | 67.059 | 3.032 | 0.002 | 0.029203 | 0.17883 | 0.12453 | 0.15097 |
| 417 | --- | rs7867359 | 17 | 136157656 | C | G | 0.99945 | 0.12814 | 1251.3 | 0.687 | 0 | 0 | 0.00027436 | ND | ND | ND |
| 418 | --- | rs7853492 | 17 | 136157785 | A | T | 0.99945 | 0.14681 | 1251.3 | 0.69 | 0 | 0 | 0.00027556 | ND | ND | ND |
| 419 | --- | rs7867739 | 17 | 136157924 | C | T | 0.99942 | 0.15659 | 1251.3 | 0.726 | 0 | 0 | 0.00028994 | ND | ND | ND |
| 420 | --- | rs7867864 | 17 | 136158008 | C | G | 0.99936 | 0.15691 | 1251.2 | 0.8 | 0 | 0 | 0.00031949 | ND | ND | ND |
| 421 | --- | rs141952207 | 17 | 136158026 | G | C | 0.99996 | 0.008981 | 1252 | 0.048 | 0 | 0 | 0 | ND | ND | ND |
| 422 | --- | rs149863406 | 17 | 136158155 | C | T | 0.99918 | 0.013745 | 1251 | 1.032 | 0 | 0 | 0.00041214 | ND | ND | ND |
| 423 | --- | rs28476494 | 17 | 136158288 | T | C | 0.99928 | 0.18331 | 1251.1 | 0.9 | 0 | 0 | 0.00035942 | ND | ND | ND |
| 424 | --- | rs7860182 | 17 | 136158327 | T | A | 0.98662 | 0.97544 | 98.485 | 491.58 | 661.91 | 0.02 | 0.27499 | -0.090135 | 0.044889 | 0.044647 |
| 425 | --- | rs28368280 | 17 | 136158400 | C | G | 0.99925 | 0.1935 | 1251.1 | 0.942 | 0 | 0 | 0.0003762 | ND | ND | ND |
| 426 | --- | rs184855103 | 17 | 136158490 | C | T | 0.99998 | 0.0090575 | 1252 | 0.029 | 0 | 0 | 0 | ND | ND | ND |
| 427 | --- | rs1927311 | 17 | 136158544 | T | C | 0.9874 | 0.97617 | 104.32 | 494.88 | 652.79 | 0.01 | 0.28096 | -0.094887 | 0.044506 | 0.033006 |
| 428 | --- | rs115071869 | 17 | 136158862 | G | A | 0.99911 | 0.23694 | 1250.9 | 1.112 | 0 | 0 | 0.00044409 | ND | ND | ND |
| 429 | --- | rs507480 | 17 | 136158964 | A | G | 0.99937 | 0.989 | 3 | 59.69 | 1189.3 | 0.001 | 0.026234 | -0.13081 | 0.12101 | 0.27972 |
| 430 | --- | rs507567 | 17 | 136158998 | A | G | 0.99705 | 0.38212 | 0.015 | 5.06 | 1246.9 | 0.003 | 0.0020328 | -0.51462 | 0.57591 | 0.37155 |
| 431 | --- | rs509482 | 17 | 136159240 | G | A | 0.98604 | 0.96899 | 724.2 | 454.3 | 73.468 | 0.029 | 0.24012 | 0.067143 | 0.047084 | 0.15386 |
| 432 | --- | rs62574608 | 17 | 136159266 | A | G | 0.92354 | 0.50729 | 1110.6 | 135.9 | 5.479 | 0.02 | 0.058652 | 0.22538 | 0.11535 | 0.050713 |
| 433 | --- | chr9:136159268:D | 17 | 136159268 | AAGGCC | A | 0.92738 | 0.62775 | 1063.2 | 181.65 | 7.148 | 0.013 | 0.078252 | 0.0096289 | 0.093572 | 0.91804 |
| 434 | --- | rs146582653 | 17 | 136159450 | G | C | 0.99949 | 0.4148 | 1251.3 | 0.684 | 0 | 0 | 0.00027316 | ND | ND | ND |
| 435 | --- | rs67318122 | 17 | 136159538 | A | G | 0.9957 | 0.27916 | 1246.6 | 5.365 | 0.013 | 0 | 0.002153 | 3.5202 | 0.73093 | 1.0627e-06 |
| 436 | --- | rs512179 | 17 | 136159540 | C | G | 0.99989 | 0.9997 | 703.95 | 467.03 | 81.018 | 0.001 | 0.25122 | 0.077437 | 0.045708 | 0.090234 |
| 437 | --- | rs512887 | 17 | 136159579 | G | A | 0.9999 | 0.99973 | 703.96 | 467.03 | 81.016 | 0 | 0.25122 | 0.077438 | 0.045708 | 0.090232 |
| 438 | --- | rs535855 | 17 | 136159790 | A | G | 0.99996 | 0.99988 | 703.98 | 467.01 | 81.008 | 0 | 0.25121 | 0.077425 | 0.045705 | 0.090264 |
| 439 | --- | rs535993 | 17 | 136159843 | A | G | 0.99996 | 0.99989 | 703.98 | 467.01 | 81.007 | 0 | 0.25121 | 0.077422 | 0.045705 | 0.090276 |
| 440 | --- | chr9:136159892:I | 17 | 136159892 | T | TAA | 0.90366 | 0.70227 | 949 | 287.24 | 15.747 | 0.016 | 0.12729 | -0.05678 | 0.073102 | 0.43733 |
| 441 | --- | chr9:136159896:I | 17 | 136159896 | T | TAAAAGAAATAA | 0.90474 | 0.70343 | 954.66 | 281.97 | 15.353 | 0.016 | 0.12487 | -0.077352 | 0.073269 | 0.29109 |
| 442 | --- | rs184760764 | 17 | 136160131 | G | A | 0.999 | 0.023915 | 1250.7 | 1.254 | 0 | 0 | 0.0005008 | ND | ND | ND |
| 443 | --- | rs146174278 | 17 | 136160165 | G | A | 0.99934 | 0.062768 | 1251.2 | 0.822 | 0 | 0 | 0.00032827 | ND | ND | ND |
| 444 | --- | rs1752338 | 17 | 136160185 | C | A | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077404 | 0.045704 | 0.090341 |
| 445 | --- | rs1633512 | 17 | 136160219 | T | C | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077404 | 0.045704 | 0.090341 |
| 446 | rs1752337 | rs1752337 | 17 | 136160228 | T | G | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077404 | 0.045704 | 0.090341 |
| 447 | --- | rs62574609 | 17 | 136160311 | T | C | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077404 | 0.045704 | 0.090341 |
| 448 | --- | rs62574610 | 17 | 136160481 | C | T | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077404 | 0.045704 | 0.090341 |
| 449 | --- | rs62574611 | 17 | 136160538 | G | C | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077404 | 0.045704 | 0.090341 |
| 450 | --- | rs9411492 | 17 | 136160617 | T | C | 0.98128 | 0.97184 | 287.87 | 612.33 | 351.77 | 0.02 | 0.47448 | -0.098358 | 0.040567 | 0.015325 |
| 451 | --- | rs565126 | 17 | 136160632 | G | A | 0.99638 | 0.9922 | 701.88 | 468.47 | 81.647 | 0.004 | 0.2523 | 0.07675 | 0.045854 | 0.094176 |
| 452 | --- | chr9:136160859:I | 17 | 136160859 | C | CA | 0.90639 | 0.83416 | 110.21 | 546.6 | 595.11 | 0.084 | 0.30634 | -0.10272 | 0.048515 | 0.034245 |
| 453 | --- | rs567898 | 17 | 136160931 | A | G | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077404 | 0.045704 | 0.090341 |
| 454 | --- | rs568022 | 17 | 136160975 | G | C | 0.95943 | 0.90869 | 745.5 | 442.23 | 64.26 | 0.012 | 0.22794 | 0.07899 | 0.049758 | 0.11241 |
| 455 | --- | rs568975 | 17 | 136161074 | G | A | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077404 | 0.045704 | 0.090341 |
| 456 | --- | rs9411382 | 17 | 136161274 | T | C | 0.99999 | 0.99999 | 81.005 | 467 | 704 | 0 | 0.2512 | -0.077414 | 0.045704 | 0.090302 |
| 457 | --- | rs572651 | 17 | 136161469 | C | T | 0.99998 | 0.99994 | 704 | 466.97 | 81.027 | 0 | 0.25121 | 0.077346 | 0.045702 | 0.090573 |
| 458 | --- | rs572653 | 17 | 136161472 | A | G | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077402 | 0.045704 | 0.090351 |
| 459 | --- | rs139740994 | 17 | 136161579 | G | C | 0.99976 | 0.030689 | 1251.7 | 0.296 | 0 | 0 | 0.00011821 | ND | ND | ND |
| 460 | --- | rs11244064 | 17 | 136161837 | G | A | 0.98501 | 0.96369 | 803.78 | 411.49 | 36.723 | 0.017 | 0.19367 | 0.02578 | 0.053656 | 0.63089 |
| 461 | rs9411493 | rs9411493 | 17 | 136161851 | A | G | 1 | 1 | 102 | 491 | 659 | 0 | 0.27756 | -0.088516 | 0.04397 | 0.044103 |
| 462 | --- | chr9:136161928:D | 17 | 136161928 | TTTC | T | 0.99708 | 0.95666 | 1186.6 | 62.174 | 3.211 | 0.004 | 0.027395 | 0.14677 | 0.12289 | 0.23233 |
| 463 | --- | rs176689 | 17 | 136162131 | G | T | 1 | 1 | 704 | 467 | 81 | 0 | 0.2512 | 0.077402 | 0.045704 | 0.090351 |
| 464 | --- | rs68032997 | 17 | 136162255 | T | C | 0.97739 | 0.92826 | 937.61 | 289.88 | 24.48 | 0.03 | 0.13532 | 0.08326 | 0.060218 | 0.16677 |
| 465 | --- | rs176690 | 17 | 136162764 | C | T | 0.99896 | 0.99794 | 705.11 | 466.17 | 80.716 | 0.001 | 0.25064 | 0.077661 | 0.045858 | 0.090362 |
| 466 | --- | rs117653144 | 17 | 136162783 | G | A | 0.99704 | 0.96021 | 1197.7 | 51.31 | 3 | 0.001 | 0.022887 | 0.15594 | 0.13015 | 0.23086 |
| 467 | --- | rs176691 | 17 | 136163306 | G | A | 0.98172 | 0.95706 | 798.88 | 415.98 | 37.115 | 0.02 | 0.19578 | 0.033599 | 0.054045 | 0.53416 |
| 468 | --- | rs176692 | 17 | 136163329 | A | G | 0.98149 | 0.95645 | 799.21 | 415.7 | 37.067 | 0.017 | 0.19562 | 0.033273 | 0.054077 | 0.53837 |
| 469 | --- | rs10901256 | 17 | 136163447 | T | C | 0.97309 | 0.95884 | 317.58 | 609.39 | 325 | 0.034 | 0.49704 | -0.059573 | 0.040579 | 0.14209 |
| 470 | --- | rs10901257 | 17 | 136163570 | G | A | 0.98239 | 0.97356 | 286.85 | 612.97 | 352.16 | 0.022 | 0.47392 | -0.096162 | 0.040535 | 0.017678 |
| 471 | --- | rs176693 | 17 | 136164001 | C | T | 1 | 0.99999 | 704 | 467 | 81 | 0 | 0.2512 | 0.0774 | 0.045704 | 0.090359 |
| 472 | --- | rs150942415 | 17 | 136164037 | G | A | 0.99995 | 0.012319 | 1251.9 | 0.064 | 0 | 0 | 0 | ND | ND | ND |
| 473 | --- | rs140667476 | 17 | 136164095 | G | T | 0.99989 | 0.01535 | 1251.9 | 0.134 | 0 | 0 | 0 | ND | ND | ND |
| 474 | --- | rs28844968 | 17 | 136164427 | A | G | 0.96493 | 0.8298 | 1053.2 | 192.58 | 6.205 | 0.009 | 0.081864 | -0.0153 | 0.080769 | 0.84976 |
| 475 | --- | rs176694 | 17 | 136164593 | T | G | 0.99808 | 0.28579 | 1249.4 | 2.572 | 0 | 0 | 0.0010272 | ND | ND | ND |
| 476 | --- | rs176695 | 17 | 136164639 | A | G | 1 | 0.99999 | 704 | 467 | 81 | 0 | 0.2512 | 0.0774 | 0.045704 | 0.090361 |
| 477 | --- | rs176696 | 17 | 136164655 | C | T | 0.99976 | 0.9994 | 102.08 | 491.12 | 658.8 | 0.002 | 0.27767 | -0.088758 | 0.043989 | 0.043619 |
| 478 | --- | rs13301309 | 17 | 136164836 | C | A | 0.99571 | 0.2919 | 1246.6 | 5.36 | 0.013 | 0 | 0.002151 | 2.9113 | 0.66463 | 5.7555e-05 |
| 479 | --- | rs191901590 | 17 | 136164922 | T | G | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 480 | --- | rs176697 | 17 | 136165211 | T | C | 0.99859 | 0.99719 | 101.56 | 490.13 | 660.31 | 0.005 | 0.27686 | -0.08956 | 0.044031 | 0.041951 |
| 481 | --- | rs193010087 | 17 | 136165284 | C | T | 0.9993 | 0.14647 | 1251.1 | 0.871 | 0 | 0 | 0.00034784 | ND | ND | ND |
| 482 | --- | rs2519836 | 17 | 136165347 | T | C | 1 | 0.0009996 | 0 | 0.001 | 1252 | 0 | 0 | ND | ND | ND |
| 483 | --- | rs182507498 | 17 | 136165348 | G | A | 0.99422 | 0.22194 | 1243.9 | 8.078 | 0 | 0.001 | 0.003226 | -0.26532 | 0.64619 | 0.68137 |
| 484 | --- | rs176698 | 17 | 136165371 | A | C | 0.99999 | 0.99999 | 704 | 467 | 81 | 0 | 0.2512 | 0.077398 | 0.045704 | 0.090367 |
| 485 | --- | rs145834222 | 17 | 136165436 | C | A | 0.99951 | 0.44019 | 1251.3 | 0.726 | 0 | 0 | 0.00028994 | ND | ND | ND |
| 486 | --- | rs187543752 | 17 | 136165446 | C | T | 1 | 1 | 1252 | 0 | 0 | 0 | 0 | ND | ND | ND |
| 487 | --- | rs7020432 | 17 | 136165694 | G | A | 0.99559 | 0.28675 | 1246.5 | 5.505 | 0.014 | 0 | 0.0022097 | 3.4798 | 0.72557 | 1.1803e-06 |
| 488 | rs7025162 | rs7025162 | 17 | 136166346 | C | T | 1 | 1 | 444 | 576 | 232 | 0 | 0.41534 | -0.28097 | 0.039371 | 9.5694e-13 |

* id '---' indicate that these variants were extraporated.

**Table S3. Associations of ABO gene in 9q32 with P-LIP or ACE levels after adjustment by smoking or Box-Cox transformation of trait values**

| | | | | P-LIP | | | | | | ACE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SNPs | | minor | | adjusted by alcohol intake | | | Box-Cox transformation*** | | | adjusted by smoking | | | Box-Cox transformation*** | | |
| (position) | stage* | allele | MAF | beta** | SE | p value | beta** | SE | p value | beta** | SE | p value | beta** | SE | p value |
| rs4363269 | 1st | G | 0.287 | 0.0849 | 0.500 | > 1e-7 | 0.00272 | 0.003 | > 1e-7 | -2.01 | 0.218 | 9.85e-20 | -1.12 | 0.125 | 1.20e-18 |
| (136123840) | 2nd | G | 0.269 | -0.220 | 0.511 | > 1e-7 | 0.000446 | 0.003 | > 1e-7 | -1.99 | 0.192 | 1.91e-24 | -1.14 | 0.106 | 3.56e-26 |
| rs8176749 | 1st | A | 0.161 | 4.18 | 0.601 | 5.55e-12 | 0.0336 | 0.004 | 1.85e-16 | 2.57 | 0.266 | 2.67e-21 | 1.46 | 0.153 | 5.77e-21 |
| (136131188) | 2nd | A | 0.188 | 5.12 | 0.576 | 1.61e-18 | 0.0396 | 0.004 | 6.45e-27 | 2.13 | 0.219 | 7.15e-22 | 1.28 | 0.123 | 1.03e-24 |
| rs8176746 | 1st | A | 0.167 | 4.16 | 0.593 | 3.75e-12 | 0.0476 | 0.004 | 4.35e-17 | 2.58 | 0.261 | 3.22e-22 | 1.47 | 0.15 | 7.39e-22 |
| (136131322) | 2nd | A | 0.198 | 5.42 | 0.562 | 2.04e-21 | 0.0580 | 0.004 | 3.10e-30 | 2.11 | 0.214 | 2.74e-22 | 1.26 | 0.12 | 8.67e-25 |
| rs2073824 | 1st | G | 0.496 | 1.29 | 0.447 | > 1e-7 | 0.00990 | 0.004 | > 1e-7 | 1.17 | 0.199 | 6.25e-9 | 0.660 | 0.114 | 8.21e-9 |
| (136132633) | 2nd | A | 0.475 | -1.82 | 0.462 | > 1e-7 | -0.0127 | 0.003 | > 1e-7 | -1.17 | 0.176 | 4.00e-11 | -0.622 | 0.099 | 3.68e-10 |
| rs657152 | 1st | A | 0.440 | 2.75 | 0.440 | 5.63e-10 | 0.0225 | 0.003 | 4.97e-14 | -0.593 | 0.201 | > 1e-7 | -0.324 | 0.115 | > 1e-7 |
| (136139265) | 2nd | A | 0.454 | 3.38 | 0.455 | 1.81e-13 | 0.0276 | 0.003 | 2.47e-21 | -0.685 | 0.178 | > 1e-7 | -0.417 | 0.099 | > 1e-7 |
| rs500498 | 1st | A | 0.455 | -2.71 | 0.438 | 8.70e-10 | -0.0215 | 0.003 | 3.56e-13 | 0.371 | 0.2 | > 1e-7 | 0.228 | 0.114 | > 1e-7 |
| (136148647) | 2nd | A | 0.445 | -3.01 | 0.456 | 5.77e-11 | -0.0247 | 0.003 | 2.28e-17 | 0.428 | 0.179 | > 1e-7 | 0.260 | 0.099 | > 1e-7 |
| rs505922 | 1st | G | 0.450 | 2.62 | 0.433 | 1.92e-9 | 0.0220 | 0.003 | 8.64e-14 | -0.503 | 0.199 | > 1e-7 | -0.274 | 0.114 | > 1e-7 |
| (136149229) | 2nd | G | 0.458 | 3.57 | 0.452 | 4.97e-15 | 0.0294 | 0.003 | 3.02e-24 | -0.630 | 0.178 | > 1e-7 | -0.389 | 0.099 | > 1e-7 |
| rs495828 | 1st | A | 0.281 | 0.536 | 0.499 | > 1e-7 | 0.00473 | 0.003 | > 1e-7 | -2.34 | 0.215 | 2.14e-26 | -1.31 | 0.123 | 2.30e-25 |
| (136154867) | 2nd | A | 0.264 | -0.0315 | 0.509 | > 1e-7 | 0.00214 | 0.003 | > 1e-7 | -2.37 | 0.188 | 9.84e-35 | -1.39 | 0.104 | 1.80e-38 |
| rs7025162 | 1st | A | 0.415 | -0.834 | 0.445 | > 1e-7 | -0.00565 | 0.003 | > 1e-7 | -1.50 | 0.197 | 5.83e-14 | -0.810 | 0.113 | 1.11e-12 |
| (136166346) | 2nd | A | 0.398 | -0.667 | 0.467 | > 1e-7 | -0.00632 | 0.003 | > 1e-7 | -1.27 | 0.178 | 1.52e-12 | -0.738 | 0.099 | 1.29e-13 |

* 1st population from the Takahata cohort, 2nd from the Yamagata cohort

** Regression coefficient

*** Optimal lambda value in Box-Cox transformation for P-LIP is -0.4 for all except rs8176746 that has -0.3, whereas that for ACE is 0.8 for all SNPs.

**Table S4. Associations of ACE1 in 17q23.3 with ACE level after adjustment by smoking or Box-Cox transformation of trait values**

| SNPs (position) | stage* | minor allele | MAF | ACE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | adjusted by smoking | | | Box-Cox transformation**** | | |
| | | | | beta** | SE | p value | beta** | SE | p value |
| rs4459609 | 1st | C | 0.371 | 3.06 | 0.192 | 3.91e-52 | 1.82 | 0.110 | 3.87e-56 |
| (61548948) | 2nd | C | 0.356 | 2.48 | 0.177 | 8.81e-42 | 1.46 | 0.098 | 1.28e-47 |
| rs4309 | 1st | G | 0.426 | 3.31 | 0.181 | 1.03e-65 | 1.95 | 0.104 | 3.83e-69 |
| (61559923) | 2nd | G | 0.409 | 3.27 | 0.163 | 1.52e-76 | 1.87 | 0.091 | 7.51e-85 |
| rs4311 | 1st | A | 0.349 | 3.25 | 0.189 | 5.08e-59 | 1.91 | 0.109 | 4.21e-62 |
| (61560763) | 2nd | A | 0.346 | 2.54 | 0.180 | 2.99e-42 | 1.53 | 0.099 | 2.80e-50 |
| rs4329 | 1st | A | 0.358 | 3.25 | 0.189 | 2.10e-59 | 1.92 | 0.108 | 2.45e-63 |
| (61563458) | 2nd | A | 0.342 | 2.64 | 0.176 | 1.00e-47 | 1.58 | 0.097 | 3.11e-55 |
| rs4343 | 1st | G | 0.360 | 3.23 | 0.189 | 9.54e-59 | 1.91 | 0.108 | 1.09e-62 |
| (61566031) | 2nd | G | 0.342 | 2.65 | 0.176 | 6.93e-48 | 1.58 | 0.097 | 2.03e-55 |
| rs4353 | 1st | A | 0.440 | 3.91 | 0.173 | 4.09e-94 | 2.32 | 0.098 | 6.72e-102 |
| (61570422) | 2nd | A | 0.422 | 3.51 | 0.158 | 1.07e-94 | 2.04 | 0.088 | 4.47e-104 |
| rs4362 | 1st | A | 0.442 | 3.94 | 0.173 | 1.55e-95 | 2.33 | 0.098 | 3.43e-103 |
| (61573761) | 2nd | A | 0.426 | 3.54 | 0.157 | 8.97e-97 | 2.05 | 0.087 | 5.77e-106 |
| rs4461142 | 1st | A | 0.434 | 2.00 | 0.194 | 6.56e-24 | 1.16 | 0.111 | 7.77e-25 |
| (61578048) | 2nd | A | 0.433 | 1.87 | 0.170 | 6.41e-27 | 1.09 | 0.095 | 5.04e-29 |

* 1st population from the Takahata cohort, 2nd from the Yamagata cohort

** Regression coefficient

*** Coefficient t-statistic

**** Optimal lambda value for Box-Cox transformation is 0.8 for all SNPs.

**Table S5. Associations of ABO gene in 9q32 with P-LIP or ACE levels after adjustment or subgroup by treatment**

| SNPs (position) | P-LIP | | | | | | | | ACE | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | adjusted by treatment history* | | | | subgroup of notreatment | | | | adjusted by treatment history* | | | | subgroup of notreatment | | | |
| | stage** | beta*** | SE | p value | stage** | beta*** | SE | p value | stage** | beta*** | SE | p value | stage** | beta*** | SE | p value |
| rs4363269 (136123840) | 1st<br>2nd | -0.0325<br>-0.343 | 0.481<br>0.564 | > 1e-7<br>> 1e-7 | comb | 0.525 | 0.443 | > 1e-7 | 1st<br>2nd | -1.96<br>-1.94 | 0.212<br>0.194 | 9.62e-20<br>6.18e-23 | comb | -1.89 | 0.160 | 3.07e-31 |
| rs8176749 (136131188) | 1st<br>2nd | 4.40<br>5.40 | 0.575<br>0.635 | 3.92e-14<br>4.53e-17 | comb | 4.04 | 0.524 | 2.15e-14 | 1st<br>2nd | 2.52<br>2.35 | 0.258<br>0.223 | 1.24e-21<br>4.14e-25 | comb | 2.30 | 0.192 | 9.06e-32 |
| rs8176746 (136131322) | 1st<br>2nd | 4.37<br>5.69 | 0.568<br>0.620 | 2.79e-14<br>1.41e-19 | comb | 4.17 | 0.516 | 1.32e-15 | 1st<br>2nd | 2.53<br>2.30 | 0.254<br>0.218 | 1.83e-22<br>3.23e-25 | comb | 2.32 | 0.189 | 3.00e-33 |
| rs657152 (136139265) | 1st<br>2nd | 2.65<br>3.49 | 0.424<br>0.506 | 5.38e-10<br>7.98e-12 | comb | 3.01 | 0.401 | 7.37e-14 | 1st<br>2nd | -0.550<br>-0.651 | 0.195<br>0.182 | > 1e-7<br>> 1e-7 | comb | -0.680 | 0.151 | > 1e-7 |
| rs500498 (136148647) | 1st<br>2nd | -2.44<br>-3.02 | 0.421<br>0.507 | 8.35e-9<br>3.16e-9 | comb | -2.56 | 0.399 | 1.71e-10 | 1st<br>2nd | 0.362<br>0.376 | 0.194<br>0.182 | > 1e-7<br>> 1e-7 | comb | 0.386 | 0.151 | > 1e-7 |
| rs505922 (136149229) | 1st<br>2nd | 2.53<br>3.64 | 0.419<br>0.501 | 2.22e-9<br>5.85e-13 | comb | 3.02 | 0.394 | 3.25e-14 | 1st<br>2nd | -0.454<br>-0.597 | 0.193<br>0.180 | > 1e-7<br>> 1e-7 | comb | -0.598 | 0.149 | > 1e-7 |
| rs495828 (136154867) | 1st<br>2nd | 0.250<br>-0.182 | 0.481<br>0.562 | > 1e-7<br>> 1e-7 | comb | 0.640 | 0.446 | > 1e-7 | 1st<br>2nd | -2.25<br>-2.38 | 0.209<br>0.190 | 7.13e-26<br>2.07e-34 | comb | -2.32 | 0.157 | 2.23e-46 |
| rs7025162 (136166346) | 1st<br>2nd | -0.806<br>-0.678 | 0.428<br>0.510 | > 1e-7<br>> 1e-7 | comb | -0.230 | 0.402 | > 1e-7 | 1st<br>2nd | -1.41<br>-1.29 | 0.191<br>0.178 | 2.85e-13<br>7.02e-13 | comb | -1.22 | 0.148 | 2.12e-16 |

* Treatment history is coded by 0 for untreated, 1 for treated or NA for not available.

** 1st population from the Takahata cohort and 2nd from the Yamagata cohort, whereas comb is combined populations of certainly untreated individuals in both cohorts.

*** Regression coefficient

**Table S6. Associations of ACE1 gene in 17q23.2 with ACE level after adjustment or subgroup by treatment**

| SNPs (position) | ACE | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | adjusted by treatment history* | | | | subgroup of notreatment | | | |
| | stage** | beta*** | SE | p value | stage** | beta*** | SE | p value |
| rs4459609 (61548948) | 1st | 3.11 | 0.210 | 5.22e-57 | comb | 2.86 | 0.148 | 7.45e-76 |
| | 2nd | 2.52 | 0.179 | 2.08e-42 | | | | |
| rs4309 (61559923) | 1st | 3.33 | 0.195 | 1.91e-70 | comb | 3.30 | 0.135 | 8.57e-114 |
| | 2nd | 3.30 | 0.163 | 2.25e-80 | | | | |
| rs4311 (61560763) | 1st | 3.29 | 0.205 | 5.39e-64 | comb | 2.94 | 0.149 | 1.50e-78 |
| | 2nd | 2.62 | 0.181 | 1.78e-44 | | | | |
| rs4329 (61563458) | 1st | 3.30 | 0.204 | 7.35e-65 | comb | 3.02 | 0.146 | 1.00e-85 |
| | 2nd | 2.70 | 0.177 | 7.42e-49 | | | | |
| rs4343 (61566031) | 1st | 3.28 | 0.204 | 3.13e-64 | comb | 3.02 | 0.146 | 1.27e-85 |
| | 2nd | 2.71 | 0.177 | 2.88e-49 | | | | |
| rs4353 (61570422) | 1st | 3.99 | 0.180 | 2.32e-105 | comb | 3.78 | 0.128 | 1.49e-155 |
| | 2nd | 3.60 | 0.159 | 1.54e-97 | | | | |
| rs4362 (61573761) | 1st | 4.01 | 0.179 | 1.48e-106 | comb | 3.77 | 0.128 | 6.96e-156 |
| | 2nd | 3.62 | 0.158 | 1.51e-99 | | | | |
| rs4461142 (61578048) | 1st | 2.03 | 0.209 | 4.40e-26 | comb | 1.89 | 0.145 | 7.80e-37 |
| | 2nd | 1.97 | 0.172 | 4.27e-29 | | | | |

* Treatment history is coded by 0 for untreated, 1 for treated or NA for not available.
** 1st population from the Takahata cohort and 2nd from the Yamagata cohort, whereas comb is combined populations of certainly untreated individuals in both cohorts.

*** Regression coefficient
**** Coefficient t-statistic

**Table S7. SNPs associated with P-LIP and/or ACE levels at a genome-wide significance level**

| locus (chr) | SNPs (build135) | position (GRCh37/hg19) | starnd | major allele | minor allele | class | | residue change | note |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | genome | functional | | |
| ABO | rs4363269 | 136123840 | + | A | G | genomic | 3' downstream ~6.7kb | | |
| (9q32) | rs8176749 | 136131188 | - | G | A | coding | synonymous | Leu310Leu | |
| | rs8176746 | 136131322 | - | C | A | coding | nonsynonymous | Leu266Met | Allele A is associated with B group |
| | rs2073824 | 136132633 | + | A | G | intron | | | |
| | rs657152 | 136139265 | + | C | A | intron | | | |
| | rs500498 | 136148647 | - | G | A | intron | | | |
| | rs505922 | 136149229 | - | A | G | intron | | | Allele A is associated with O group |
| | rs495828 | 136154867 | - | C | A | genomic | 5' upstream ~4.2kb | | |
| | rs7025162 | 136166346 | - | G | A | genomic | 5' upstream ~15.7kb | | |
| ACE1 | rs4459609 | 61548948 | + | A | C | genomic | 5' upstream ~5.5kb | | |
| (17q23.3) | rs4309 | 61559923 | - | A | G | coding | synonymous | Pro405Pro | |
| | rs4311 | 61560763 | - | G | A | intron | | | |
| | rs4329 | 61563458 | + | G | A | intron | | | |
| | rs4343 | 61566031 | + | A | G | intron | | | |
| | rs4353 | 61570422 | + | G | A | intron | | | |
| | rs4362 | 61573761 | - | G | A | coding | synonymous | Phe555Phe | |
| | rs4461142 | 61578048 | - | G | A | genomic | 3' downstream ~2.3kb | | |

**Table S8. Associations of ABO gene in 9q32 with P-LIP and ACE in combined population**

| SNPs | minor | | P-LIP | | | ACE | | |
|---|---|---|---|---|---|---|---|---|
| (position) | allele | MAF | beta* | T** | p value | beta* | T** | p value |
| rs4363269 | G | 0.276 | -0.115 | -0.321 | > 1e-7 | -1.94 | -14.1 | 1.87e-43 |
| rs8176749 | A | 0.177 | 4.78 | 11.6 | 3.02e-30 | 2.29 | 14.0 | 4.08e-43 |
| rs8176746 | A | 0.186 | 4.94 | 12.2 | 2.01e-33 | -1.07 | -8.40 | 7.06e-17 |
| rs657152 | A | 0.448 | 3.05 | 9.61 | 1.50e-21 | 0.417 | 3.26 | > 1e-7 |
| rs500498 | A | 0.449 | -2.76 | -8.71 | 5.16e-18 | -0.581 | -4.57 | > 1e-7 |
| rs505922 | G | 0.455 | 3.11 | 9.88 | 1.18e-22 | -2.31 | -17.0 | > 1e-7 |
| rs495828 | A | 0.271 | 0.101 | 0.282 | > 1e-7 | -2.27 | -10.8 | 8.24e-62 |
| rs7025162 | A | 0.404 | -0.715 | -2.21 | > 1e-7 | -1.31 | -10.3 | 1.65e-24 |

* Regression coefficient

** Coefficient t-statistic

**Table S9. Associations of ACE gene in 17q23.2 with ACE in combined population**

| SNPs (position) | minor allele | MAF | ACE | | |
|---|---|---|---|---|---|
| | | | beta* | SE | p value |
| rs4459609 | G | 0.276 | 2.765 | 0.125 | 9.462e-101 |
| rs4309 | A | 0.177 | 3.27 | 0.116 | 5.659e-154 |
| rs4311 | A | 0.186 | 2.891 | 0.126 | 4.389e-108 |
| rs4329 | A | 0.448 | 2.945 | 0.123 | 3.04e-115 |
| rs4343 | A | 0.449 | 2.939 | 0.123 | 6.647e-115 |
| rs4353 | G | 0.455 | 3.702 | 0.112 | 4.446e-205 |
| rs4362 | A | 0.271 | 3.726 | 0.111 | 1.527e-208 |
| rs4461142 | A | 0.404 | 1.923 | 0.123 | 8.542e-053 |

* Regression coefficient
** Coefficient t-statistic

**Table S10. Sample numbers removed by each quality control filter**

| | |
|---|---|
| Initial sample size | 1639 |
| Individual missing data rate (imiss) > 0.05 | 16 |
| Individual heterozygosity > 0.35 | 6 |
| Cryptic relatedness: likely 1st - 3rd relatives* | 314 |
| Population outliers (PCA by EIGENSTRAT) | 51 |
| Final sample size | 1252 |

*eliminating sample with higher imiss from each pair.

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