

**Supplementary Table SII.** Information on SNPs of 85 metabolites.

| ID.Exposure  | SNP         | EA | OA | EAF        | Beta       | P         | F   |
|--------------|-------------|----|----|------------|------------|-----------|-----|
| GCST90199621 | rs79717472  | G  | A  | 0.0280471  | -0.218081  | 2.32E-06  | 22  |
| GCST90199621 | rs1765260   | A  | G  | 0.153343   | -0.0999797 | 2.28E-06  | 22  |
| GCST90199621 | rs7705826   | G  | T  | 0.833702   | 0.199276   | 2.38E-22  | 95  |
| GCST90199621 | rs115168226 | G  | A  | 0.00618191 | -0.446554  | 4.19E-06  | 21  |
| GCST90199621 | rs1511808   | T  | C  | 0.615503   | -0.0697692 | 9.28E-06  | 20  |
| GCST90199621 | rs112819917 | A  | G  | 0.00817656 | -0.438422  | 2.98E-07  | 26  |
| GCST90199621 | rs2512510   | A  | G  | 0.216759   | -0.0870239 | 3.04E-06  | 22  |
| GCST90199621 | rs13026148  | A  | G  | 0.378223   | -0.0706059 | 8.57E-06  | 20  |
| GCST90199621 | rs149235996 | G  | A  | 0.0120372  | -0.56909   | 4.46E-16  | 66  |
| GCST90199621 | rs10900223  | C  | T  | 0.250122   | -0.105448  | 2.15E-09  | 36  |
| GCST90199621 | rs13247874  | T  | C  | 0.190234   | -0.103668  | 1.20E-07  | 28  |
| GCST90199621 | rs138190991 | A  | T  | 0.0301671  | -0.212246  | 2.27E-06  | 22  |
| GCST90199621 | rs1171617   | T  | G  | 0.770118   | 0.443332   | 4.76E-134 | 607 |
| GCST90199621 | rs78562549  | T  | G  | 0.00740514 | 0.394897   | 7.54E-06  | 20  |
| GCST90199621 | rs78428648  | A  | G  | 0.0377174  | 0.179162   | 7.68E-06  | 20  |
| GCST90199621 | rs11871125  | T  | C  | 0.394949   | 0.072665   | 4.18E-06  | 21  |
| GCST90199621 | rs76187828  | G  | A  | 0.0930578  | -0.117619  | 8.69E-06  | 20  |
| GCST90199621 | rs10826332  | A  | T  | 0.0770596  | -0.142187  | 6.93E-07  | 25  |
| GCST90199621 | rs55775057  | A  | G  | 0.150493   | -0.0960378 | 8.38E-06  | 20  |
| GCST90199621 | rs76638161  | T  | C  | 0.0318954  | 0.192728   | 9.35E-06  | 20  |
| GCST90199621 | rs73025372  | G  | A  | 0.0515375  | 0.157569   | 5.32E-06  | 21  |
| GCST90199621 | rs72836546  | T  | C  | 0.23482    | -0.0906795 | 5.22E-07  | 25  |
| GCST90199621 | rs7537155   | A  | G  | 0.199113   | -0.0900652 | 2.82E-06  | 22  |
| GCST90199621 | rs73006619  | C  | A  | 0.0466597  | -0.168203  | 5.06E-06  | 21  |
| GCST90199621 | rs2625939   | T  | C  | 0.228206   | 0.0859678  | 2.81E-06  | 22  |
| GCST90199649 | rs80195574  | A  | G  | 0.0272033  | -0.221346  | 2.67E-06  | 22  |
| GCST90199649 | rs140033739 | A  | G  | 0.0496511  | -0.166275  | 2.29E-06  | 22  |
| GCST90199649 | rs112843621 | G  | A  | 0.0095679  | -0.366363  | 2.67E-06  | 22  |
| GCST90199649 | rs115307528 | G  | A  | 0.0131579  | -0.299834  | 6.77E-06  | 20  |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90199649 | rs964184    | C | G | 0.868833   | -0.194744  | 4.71E-18 | 75  |
| GCST90199649 | rs74988287  | C | T | 0.0099395  | -0.366432  | 2.01E-06 | 23  |
| GCST90199649 | rs79608464  | A | G | 0.01871    | 0.25749    | 4.68E-06 | 21  |
| GCST90199649 | rs10188669  | A | G | 0.51141    | -0.0671657 | 8.94E-06 | 20  |
| GCST90199649 | rs1532085   | G | A | 0.623614   | -0.0917612 | 5.70E-09 | 34  |
| GCST90199649 | rs77960347  | G | A | 0.0143349  | 0.479876   | 3.78E-14 | 57  |
| GCST90199649 | rs112957492 | C | T | 0.338891   | -0.195795  | 1.38E-35 | 155 |
| GCST90199649 | rs11121795  | T | C | 0.0377603  | -0.178874  | 6.01E-06 | 20  |
| GCST90199649 | rs2269938   | G | C | 0.166874   | -0.104296  | 2.86E-07 | 26  |
| GCST90199649 | rs66466742  | T | C | 0.0402441  | -0.189746  | 7.68E-07 | 24  |
| GCST90199649 | rs60417901  | T | C | 0.0227329  | -0.226606  | 9.22E-06 | 20  |
| GCST90199649 | rs174560    | C | T | 0.306967   | -0.263536  | 3.50E-59 | 263 |
| GCST90199649 | rs7241918   | T | G | 0.826708   | 0.132894   | 3.06E-11 | 44  |
| GCST90199649 | rs3812316   | G | C | 0.121888   | -0.136926  | 3.05E-09 | 35  |
| GCST90199649 | rs400810    | G | A | 0.0862856  | 0.128883   | 1.88E-06 | 23  |
| GCST90199649 | rs2712421   | T | G | 0.655887   | 0.0732419  | 4.91E-06 | 21  |
| GCST90199649 | rs34542491  | T | C | 0.175664   | 0.0896599  | 7.13E-06 | 20  |
| GCST90199649 | rs157595    | G | A | 0.599898   | 0.0939248  | 3.18E-09 | 35  |
| GCST90199649 | rs141701630 | T | C | 0.012135   | 0.317893   | 5.36E-06 | 21  |
| GCST90199649 | rs72697217  | C | G | 0.0714189  | 0.139809   | 7.30E-06 | 20  |
| GCST90199663 | rs10101376  | G | A | 0.388492   | 0.0755876  | 7.38E-06 | 20  |
| GCST90199663 | rs6756669   | G | A | 0.713592   | 0.0812734  | 9.85E-06 | 20  |
| GCST90199663 | rs12878900  | G | A | 0.112711   | -0.132112  | 4.39E-07 | 26  |
| GCST90199663 | rs739244    | G | A | 0.748831   | -0.0872158 | 3.66E-06 | 21  |
| GCST90199663 | rs1969346   | T | C | 0.0494096  | 0.169438   | 8.92E-06 | 20  |
| GCST90199663 | rs1521039   | G | A | 0.890797   | -0.133494  | 4.93E-07 | 25  |
| GCST90199663 | rs13102958  | G | A | 0.417198   | 0.0755964  | 6.56E-06 | 20  |
| GCST90199663 | rs12444105  | G | A | 0.63628    | -0.0782771 | 5.57E-06 | 21  |
| GCST90199663 | rs116938011 | T | C | 0.00979701 | -0.380537  | 6.77E-06 | 20  |
| GCST90199663 | rs3767942   | G | A | 0.268484   | 0.0875381  | 3.63E-06 | 21  |
| GCST90199663 | rs79284264  | C | T | 0.0256537  | 0.231367   | 9.64E-06 | 20  |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90199663 | rs11040389  | T | C | 0.434185   | 0.0796657  | 1.47E-06 | 23 |
| GCST90199663 | rs76793324  | C | T | 0.0163265  | 0.293567   | 6.95E-06 | 20 |
| GCST90199663 | rs144625636 | T | C | 0.0136746  | 0.317716   | 9.30E-06 | 20 |
| GCST90199663 | rs12319193  | T | G | 0.00835909 | 0.439649   | 1.44E-06 | 23 |
| GCST90199663 | rs78621707  | A | G | 0.021614   | 0.278554   | 8.33E-07 | 24 |
| GCST90199663 | rs114393741 | A | G | 0.0144521  | 0.302597   | 9.79E-06 | 20 |
| GCST90199663 | rs116272095 | C | G | 0.015461   | 0.318113   | 1.81E-06 | 23 |
| GCST90199663 | rs12354542  | C | T | 0.0506867  | -0.175898  | 2.43E-06 | 22 |
| GCST90199685 | rs113718400 | A | C | 0.0198899  | -0.278095  | 9.67E-06 | 20 |
| GCST90199685 | rs11552067  | A | G | 0.587463   | 0.0845951  | 3.31E-06 | 22 |
| GCST90199685 | rs56327721  | T | C | 0.106214   | -0.132143  | 3.27E-06 | 22 |
| GCST90199685 | rs111764634 | A | C | 0.0711024  | 0.160187   | 2.97E-06 | 22 |
| GCST90199685 | rs117372736 | T | G | 0.0135114  | 0.346995   | 5.99E-06 | 20 |
| GCST90199685 | rs141172381 | A | G | 0.0189245  | 0.286907   | 9.24E-06 | 20 |
| GCST90199685 | rs11924632  | G | A | 0.319162   | -0.0837752 | 9.59E-06 | 20 |
| GCST90199685 | rs4972489   | C | A | 0.219483   | 0.109484   | 3.87E-07 | 26 |
| GCST90199685 | rs77599553  | A | T | 0.024663   | -0.26624   | 3.11E-06 | 22 |
| GCST90199685 | rs34291068  | A | C | 0.0631083  | 0.159431   | 8.78E-06 | 20 |
| GCST90199685 | rs59927118  | T | C | 0.233493   | 0.0964238  | 4.08E-06 | 21 |
| GCST90199685 | rs78575779  | G | A | 0.0286499  | -0.234076  | 8.42E-06 | 20 |
| GCST90199685 | rs952263    | T | G | 0.231638   | 0.0960714  | 4.40E-06 | 21 |
| GCST90199685 | rs73121585  | A | C | 0.0186813  | -0.286922  | 9.99E-06 | 20 |
| GCST90199685 | rs189863837 | A | G | 0.0248153  | 0.280524   | 8.17E-07 | 24 |
| GCST90199685 | rs12498693  | A | C | 0.0908947  | -0.140175  | 4.87E-06 | 21 |
| GCST90199685 | rs4946146   | T | C | 0.0182161  | 0.311867   | 2.31E-06 | 22 |
| GCST90199685 | rs17035713  | G | A | 0.0555824  | -0.176168  | 6.71E-06 | 20 |
| GCST90199685 | rs7643986   | C | T | 0.0314905  | 0.237339   | 2.91E-06 | 22 |
| GCST90199685 | rs72679893  | T | C | 0.0830319  | -0.141425  | 8.32E-06 | 20 |
| GCST90199685 | rs6081988   | C | T | 0.101462   | 0.130879   | 8.51E-06 | 20 |
| GCST90199704 | rs1153602   | A | T | 0.336326   | -0.0812575 | 1.18E-06 | 24 |
| GCST90199704 | rs7542137   | T | C | 0.603252   | 0.103358   | 1.59E-10 | 41 |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90199704 | rs75995468  | T | C | 0.138317   | 0.11364    | 9.99E-07 | 24  |
| GCST90199704 | rs117724688 | C | T | 0.0156444  | -0.285861  | 7.32E-06 | 20  |
| GCST90199704 | rs75538425  | A | G | 0.0228517  | -0.241555  | 6.32E-06 | 20  |
| GCST90199704 | rs73213447  | G | A | 0.00821918 | -0.399753  | 5.82E-06 | 21  |
| GCST90199704 | rs78813940  | T | C | 0.00403888 | 0.561168   | 7.44E-06 | 20  |
| GCST90199704 | rs6668000   | A | G | 0.630499   | 0.0781327  | 3.30E-06 | 22  |
| GCST90199704 | rs1126742   | G | A | 0.125154   | -0.251503  | 6.95E-26 | 111 |
| GCST90199704 | rs72817577  | T | C | 0.0282864  | -0.235596  | 7.06E-07 | 25  |
| GCST90199704 | rs184542354 | A | G | 0.00897629 | 0.375531   | 8.77E-06 | 20  |
| GCST90199704 | rs3009980   | G | A | 0.283734   | -0.0795132 | 7.10E-06 | 20  |
| GCST90199704 | rs62384970  | C | T | 0.0492196  | 0.163727   | 7.83E-06 | 20  |
| GCST90199704 | rs2837077   | T | C | 0.450339   | 0.0782247  | 1.10E-06 | 24  |
| GCST90199704 | rs10028378  | G | T | 0.825977   | 0.0996459  | 3.46E-06 | 22  |
| GCST90199704 | rs113017771 | C | G | 0.010011   | 0.392351   | 8.79E-07 | 24  |
| GCST90199704 | rs79795772  | A | G | 0.0396291  | -0.189938  | 3.11E-06 | 22  |
| GCST90199704 | rs61875118  | C | T | 0.226165   | 0.0877104  | 5.12E-06 | 21  |
| GCST90199704 | rs150942244 | T | C | 0.02       | 0.265696   | 2.57E-06 | 22  |
| GCST90199704 | rs77899273  | C | T | 0.0821363  | 0.135289   | 5.09E-06 | 21  |
| GCST90199708 | rs138150612 | T | C | 0.0051008  | 0.47105    | 6.56E-06 | 20  |
| GCST90199708 | rs1171617   | T | G | 0.769099   | 0.247778   | 5.24E-44 | 194 |
| GCST90199708 | rs117762677 | T | C | 0.034713   | 0.185708   | 5.67E-06 | 21  |
| GCST90199708 | rs113625841 | A | G | 0.257438   | 0.0781236  | 3.91E-06 | 21  |
| GCST90199708 | rs1285961   | T | G | 0.617494   | 0.0687388  | 6.55E-06 | 20  |
| GCST90199708 | rs4777434   | T | G | 0.02705    | -0.20181   | 9.36E-06 | 20  |
| GCST90199708 | rs59871056  | T | G | 0.0175545  | 0.259816   | 4.03E-06 | 21  |
| GCST90199708 | rs61777299  | C | A | 0.350658   | -0.0704525 | 6.91E-06 | 20  |
| GCST90199708 | rs139859957 | G | A | 0.00871987 | 0.369427   | 2.92E-06 | 22  |
| GCST90199708 | rs140119231 | C | T | 0.00778589 | -0.379836  | 7.66E-06 | 20  |
| GCST90199708 | rs662138    | G | C | 0.175208   | -0.164279  | 3.56E-17 | 71  |
| GCST90199708 | rs149413352 | A | C | 0.0106305  | 0.690166   | 1.75E-21 | 91  |
| GCST90199708 | rs2155483   | T | C | 0.48503    | -0.0673428 | 8.42E-06 | 20  |

|              |             |   |   |           |            |          |     |
|--------------|-------------|---|---|-----------|------------|----------|-----|
| GCST90199708 | rs34536959  | A | G | 0.0449793 | 0.159256   | 9.32E-06 | 20  |
| GCST90199708 | rs9405575   | T | C | 0.148368  | -0.0937108 | 6.75E-06 | 20  |
| GCST90199708 | rs80329585  | C | A | 0.0110909 | -0.315519  | 8.43E-06 | 20  |
| GCST90199708 | rs74586727  | T | G | 0.0234753 | 0.225696   | 3.69E-06 | 21  |
| GCST90199708 | rs41271129  | C | A | 0.0679771 | 0.130884   | 6.42E-06 | 20  |
| GCST90199708 | rs4363195   | C | T | 0.550206  | 0.0718604  | 1.80E-06 | 23  |
| GCST90199708 | rs78802404  | A | T | 0.0130719 | 0.327065   | 4.99E-07 | 25  |
| GCST90199708 | rs80254170  | G | A | 0.0753085 | -0.151829  | 4.85E-08 | 30  |
| GCST90199710 | rs11084170  | G | A | 0.304541  | -0.0847801 | 6.88E-06 | 20  |
| GCST90199710 | rs987672    | A | G | 0.626577  | 0.0803252  | 9.77E-06 | 20  |
| GCST90199710 | rs115021433 | C | A | 0.029674  | 0.231516   | 6.12E-06 | 20  |
| GCST90199710 | rs61897793  | A | G | 0.202784  | 0.279215   | 4.44E-39 | 171 |
| GCST90199710 | rs34156842  | G | T | 0.220209  | -0.0974655 | 5.29E-06 | 21  |
| GCST90199710 | rs188133144 | A | G | 0.0180751 | -0.326281  | 5.97E-07 | 25  |
| GCST90199710 | rs1192922   | A | C | 0.626826  | 0.0821714  | 7.58E-06 | 20  |
| GCST90199710 | rs182193976 | A | G | 0.0127236 | -0.343978  | 8.59E-06 | 20  |
| GCST90199710 | rs73179662  | A | G | 0.0503077 | -0.178487  | 4.51E-06 | 21  |
| GCST90199710 | rs12191730  | A | G | 0.010694  | -0.390641  | 3.26E-06 | 22  |
| GCST90199710 | rs12737465  | A | G | 0.58311   | 0.0853655  | 1.30E-06 | 23  |
| GCST90199710 | rs1331432   | T | C | 0.749256  | -0.0945744 | 2.81E-06 | 22  |
| GCST90199710 | rs17821152  | G | A | 0.502     | -0.082568  | 3.01E-06 | 22  |
| GCST90199710 | rs75530230  | T | C | 0.0026948 | -0.742321  | 8.97E-06 | 20  |
| GCST90199710 | rs1674120   | T | C | 0.771484  | -0.0959153 | 8.26E-06 | 20  |
| GCST90199710 | rs2912547   | T | G | 0.812865  | 0.102133   | 4.98E-06 | 21  |
| GCST90199710 | rs4790506   | G | A | 0.817557  | -0.103272  | 4.93E-06 | 21  |
| GCST90199710 | rs78525462  | C | T | 0.0826376 | -0.16651   | 1.65E-07 | 27  |
| GCST90199710 | rs149314501 | C | T | 0.0106795 | -0.407226  | 1.59E-06 | 23  |
| GCST90199710 | rs7874009   | T | C | 0.0589819 | -0.169232  | 4.78E-06 | 21  |
| GCST90199710 | rs6034162   | A | G | 0.602662  | -0.0881646 | 9.38E-07 | 24  |
| GCST90199710 | rs79715983  | C | T | 0.118937  | 0.120931   | 5.68E-06 | 21  |
| GCST90199710 | rs56281468  | C | G | 0.138067  | 0.122099   | 1.31E-06 | 23  |

|              |             |   |   |            |           |          |    |
|--------------|-------------|---|---|------------|-----------|----------|----|
| GCST90199728 | rs143706129 | A | G | 0.0690201  | -0.142806 | 1.20E-06 | 24 |
| GCST90199728 | rs10177868  | T | G | 0.218625   | 0.083033  | 7.51E-06 | 20 |
| GCST90199728 | rs10864859  | T | G | 0.92576    | -0.126142 | 8.43E-06 | 20 |
| GCST90199728 | rs79859092  | C | T | 0.035749   | -0.191696 | 2.16E-06 | 22 |
| GCST90199728 | rs7040332   | T | C | 0.405899   | 0.0721409 | 2.30E-06 | 22 |
| GCST90199728 | rs79507970  | C | G | 0.0199466  | 0.236631  | 9.45E-06 | 20 |
| GCST90199728 | rs2670012   | T | C | 0.536796   | 0.0714097 | 3.92E-06 | 21 |
| GCST90199728 | rs116530753 | A | G | 0.0502662  | -0.168919 | 8.86E-07 | 24 |
| GCST90199728 | rs113915691 | A | G | 0.0625612  | -0.159624 | 2.14E-07 | 27 |
| GCST90199728 | rs80053496  | A | G | 0.0209794  | -0.237506 | 4.52E-06 | 21 |
| GCST90199728 | rs7803343   | A | G | 0.710619   | -0.072896 | 9.74E-06 | 20 |
| GCST90199742 | rs4931585   | T | A | 0.310493   | 0.0749291 | 7.11E-06 | 20 |
| GCST90199742 | rs72693372  | A | G | 0.036805   | -0.182322 | 8.10E-06 | 20 |
| GCST90199742 | rs117940165 | G | T | 0.0159837  | 0.280505  | 5.53E-06 | 21 |
| GCST90199742 | rs494342    | A | T | 0.712207   | 0.0872112 | 2.72E-07 | 26 |
| GCST90199742 | rs4144431   | A | G | 0.514879   | 0.0703843 | 5.82E-06 | 21 |
| GCST90199742 | rs117145318 | A | C | 0.0347531  | 0.190308  | 5.40E-06 | 21 |
| GCST90199742 | rs141018764 | T | C | 0.0128469  | -0.323373 | 1.77E-06 | 23 |
| GCST90199742 | rs72781626  | T | C | 0.0125396  | -0.308251 | 7.87E-06 | 20 |
| GCST90199742 | rs75713974  | C | T | 0.030303   | 0.199475  | 7.47E-06 | 20 |
| GCST90199742 | rs6514277   | A | C | 0.182261   | 0.092645  | 4.25E-06 | 21 |
| GCST90199742 | rs391561    | C | G | 0.328857   | 0.073542  | 5.63E-06 | 21 |
| GCST90199742 | rs140386921 | T | C | 0.0249297  | -0.221884 | 6.00E-06 | 20 |
| GCST90199742 | rs141146649 | A | G | 0.00430564 | -0.554327 | 1.40E-06 | 23 |
| GCST90199742 | rs603737    | A | G | 0.585069   | 0.0757562 | 3.55E-06 | 21 |
| GCST90199742 | rs61958162  | A | G | 0.00983726 | -0.343629 | 9.43E-06 | 20 |
| GCST90199742 | rs77087491  | A | G | 0.0423482  | 0.170892  | 6.67E-06 | 20 |
| GCST90199742 | rs77692382  | T | C | 0.248839   | 0.148269  | 5.09E-17 | 70 |
| GCST90199742 | rs143961980 | A | G | 0.0251672  | 0.232201  | 1.95E-06 | 23 |
| GCST90199742 | rs75827837  | G | T | 0.0129013  | -0.33091  | 7.51E-07 | 24 |
| GCST90199742 | rs1911739   | T | C | 0.912242   | 0.12135   | 6.60E-06 | 20 |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90199742 | rs7669946   | A | G | 0.00909532 | -0.357656  | 9.00E-06 | 20  |
| GCST90199742 | rs7813127   | C | T | 0.101249   | -0.111165  | 9.33E-06 | 20  |
| GCST90199742 | rs11702737  | C | T | 0.737722   | -0.0793689 | 9.73E-06 | 20  |
| GCST90199742 | rs13253349  | A | G | 0.297826   | -0.0812137 | 1.18E-06 | 24  |
| GCST90199742 | rs1461556   | G | A | 0.325759   | 0.0754386  | 5.08E-06 | 21  |
| GCST90199742 | rs1532625   | T | C | 0.438382   | 0.0693843  | 6.64E-06 | 20  |
| GCST90199742 | rs174546    | T | C | 0.33937    | 0.128831   | 9.63E-16 | 65  |
| GCST90199742 | rs145233615 | G | T | 0.00836284 | 0.385983   | 4.58E-06 | 21  |
| GCST90199770 | rs10742001  | A | G | 0.156238   | -0.106502  | 5.06E-07 | 25  |
| GCST90199770 | rs11723204  | G | T | 0.0242253  | 0.240196   | 1.72E-06 | 23  |
| GCST90199770 | rs11215670  | T | C | 0.0372577  | 0.221077   | 3.81E-08 | 30  |
| GCST90199770 | rs17650378  | G | A | 0.0296388  | 0.202994   | 7.94E-06 | 20  |
| GCST90199770 | rs143357148 | T | A | 0.0100288  | 0.341054   | 8.25E-06 | 20  |
| GCST90199770 | rs1010640   | C | T | 0.0699315  | 0.135963   | 9.93E-06 | 20  |
| GCST90199770 | rs13199548  | G | A | 0.37493    | 0.0770293  | 2.68E-06 | 22  |
| GCST90199770 | rs174564    | G | A | 0.337395   | -0.270612  | 5.43E-64 | 285 |
| GCST90199770 | rs11099075  | G | A | 0.765458   | 0.0857877  | 2.58E-06 | 22  |
| GCST90199770 | rs74359901  | T | A | 0.0503881  | 0.170341   | 3.26E-06 | 22  |
| GCST90199770 | rs1319528   | C | T | 0.138249   | 0.100748   | 7.54E-06 | 20  |
| GCST90199770 | rs62280280  | C | T | 0.482171   | -0.0732936 | 2.40E-06 | 22  |
| GCST90199770 | rs137996931 | C | A | 0.0673429  | -0.140157  | 3.51E-06 | 22  |
| GCST90199770 | rs79829413  | T | C | 0.00787919 | 0.387696   | 6.35E-06 | 20  |
| GCST90199770 | rs373866736 | C | T | 0.0699921  | 0.133454   | 9.10E-06 | 20  |
| GCST90199770 | rs146241528 | A | G | 0.027322   | 0.210539   | 7.35E-06 | 20  |
| GCST90199770 | rs117301803 | A | C | 0.0329188  | -0.197496  | 4.70E-06 | 21  |
| GCST90199770 | rs117986168 | T | C | 0.067867   | 0.135809   | 8.94E-06 | 20  |
| GCST90199770 | rs78231662  | C | T | 0.0188753  | 0.267118   | 2.56E-06 | 22  |
| GCST90199770 | rs7320450   | T | C | 0.0201808  | -0.259157  | 1.80E-06 | 23  |
| GCST90199770 | rs202190768 | T | C | 0.251549   | 0.0849917  | 1.49E-06 | 23  |
| GCST90199770 | rs148115101 | A | G | 0.0039979  | -0.557222  | 4.93E-06 | 21  |
| GCST90199770 | rs7515787   | C | T | 0.359385   | 0.072396   | 6.07E-06 | 20  |

|              |             |   |   |            |            |           |      |
|--------------|-------------|---|---|------------|------------|-----------|------|
| GCST90199788 | rs12937489  | T | C | 0.220194   | -0.0873811 | 6.33E-06  | 20   |
| GCST90199788 | rs12672599  | T | C | 0.795666   | 0.0891403  | 2.70E-06  | 22   |
| GCST90199788 | rs73067080  | C | T | 0.164968   | 0.0994238  | 1.27E-06  | 23   |
| GCST90199788 | rs142098308 | C | G | 0.00878149 | -0.375856  | 4.33E-06  | 21   |
| GCST90199788 | rs12271414  | C | G | 0.188048   | -0.0981658 | 7.13E-07  | 25   |
| GCST90199788 | rs4634608   | C | T | 0.457898   | -0.0697081 | 7.00E-06  | 20   |
| GCST90199788 | rs11651313  | C | T | 0.0978434  | -0.115453  | 8.21E-06  | 20   |
| GCST90199788 | rs4816180   | T | C | 0.676275   | 0.0753398  | 7.12E-06  | 20   |
| GCST90199788 | rs1759304   | C | T | 0.515131   | 0.0691887  | 9.13E-06  | 20   |
| GCST90199788 | rs102275    | C | T | 0.345078   | -0.562555  | 1.00E-200 | 1422 |
| GCST90199788 | rs115677056 | G | A | 0.0254227  | -0.216222  | 7.30E-06  | 20   |
| GCST90199788 | rs138002285 | T | G | 0.0149393  | -0.296124  | 2.82E-06  | 22   |
| GCST90199788 | rs12946063  | C | T | 0.386518   | -0.0790675 | 3.91E-07  | 26   |
| GCST90199788 | rs79215615  | G | A | 0.0140329  | -0.330792  | 4.32E-07  | 26   |
| GCST90199788 | rs72871796  | G | A | 0.0168123  | -0.263905  | 8.33E-06  | 20   |
| GCST90199788 | rs116881210 | T | A | 0.0224918  | 0.234399   | 6.78E-06  | 20   |
| GCST90199788 | rs4500751   | T | C | 0.310531   | -0.119795  | 3.34E-13  | 53   |
| GCST90199788 | rs1219550   | C | T | 0.162727   | -0.117372  | 1.25E-08  | 32   |
| GCST90199788 | rs11036860  | G | A | 0.98084    | -0.259724  | 3.68E-06  | 21   |
| GCST90199788 | rs61781291  | A | T | 0.253201   | 0.0836417  | 2.34E-06  | 22   |
| GCST90199788 | rs79564235  | C | T | 0.0230685  | 0.234166   | 4.17E-06  | 21   |
| GCST90199788 | rs12446329  | T | C | 0.0306444  | 0.206003   | 3.13E-06  | 22   |
| GCST90199788 | rs11773889  | T | C | 0.221941   | -0.0843212 | 5.69E-06  | 21   |
| GCST90199788 | rs9610183   | C | G | 0.0609741  | -0.144929  | 8.50E-06  | 20   |
| GCST90199788 | rs2954021   | G | A | 0.509683   | -0.0891919 | 6.67E-09  | 34   |
| GCST90199788 | rs62343171  | T | C | 0.0757059  | -0.130662  | 5.60E-06  | 21   |
| GCST90199788 | rs58542926  | T | C | 0.0754694  | -0.15957   | 4.93E-08  | 30   |
| GCST90199788 | rs2883070   | C | T | 0.242563   | 0.0837746  | 2.99E-06  | 22   |
| GCST90199885 | rs12924700  | G | A | 0.0791819  | 0.123369   | 6.49E-06  | 20   |
| GCST90199885 | rs72808295  | T | C | 0.0491953  | -0.150055  | 9.87E-06  | 20   |
| GCST90199885 | rs9484270   | T | G | 0.223925   | 0.0782238  | 9.97E-06  | 20   |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90199885 | rs10063681  | T | C | 0.605637   | -0.0692409 | 8.11E-06 | 20  |
| GCST90199885 | rs189426680 | G | A | 0.0109836  | 0.315268   | 8.85E-06 | 20  |
| GCST90199885 | rs12462160  | G | A | 0.433031   | 0.0657884  | 9.47E-06 | 20  |
| GCST90199885 | rs7653239   | A | G | 0.0867172  | 0.117207   | 8.44E-06 | 20  |
| GCST90199885 | rs1904757   | G | T | 0.157556   | 0.0949719  | 4.43E-06 | 21  |
| GCST90199885 | rs1881397   | G | A | 0.230577   | 0.0794446  | 7.29E-06 | 20  |
| GCST90199885 | rs9869009   | A | G | 0.102378   | 0.111108   | 7.11E-06 | 20  |
| GCST90199885 | rs111990802 | G | A | 0.109613   | 0.111036   | 3.35E-06 | 22  |
| GCST90199885 | rs60230066  | G | A | 0.0158004  | -0.280661  | 2.21E-06 | 22  |
| GCST90199885 | rs277627    | A | G | 0.667006   | 0.202994   | 2.01E-36 | 159 |
| GCST90199885 | rs150375031 | T | C | 0.0139692  | 0.289388   | 5.60E-06 | 21  |
| GCST90199885 | rs72855962  | A | T | 0.0242212  | 0.223841   | 4.05E-06 | 21  |
| GCST90199885 | rs6785814   | C | A | 0.771383   | 0.0849179  | 1.73E-06 | 23  |
| GCST90199885 | rs12446442  | T | C | 0.0763532  | 0.123185   | 9.99E-06 | 20  |
| GCST90199885 | rs116836578 | T | C | 0.00384193 | -0.621917  | 2.03E-07 | 27  |
| GCST90199885 | rs76352471  | T | C | 0.0412704  | 0.169001   | 5.59E-06 | 21  |
| GCST90199885 | rs7610977   | A | G | 0.427323   | 0.0678664  | 5.36E-06 | 21  |
| GCST90199988 | rs117889737 | T | C | 0.0214296  | -0.273225  | 1.95E-06 | 23  |
| GCST90199988 | rs75151194  | G | T | 0.0501104  | -0.168361  | 7.98E-06 | 20  |
| GCST90199988 | rs6919740   | T | A | 0.396995   | 0.0800759  | 2.06E-06 | 23  |
| GCST90199988 | rs118121717 | A | G | 0.0444261  | 0.195488   | 9.97E-07 | 24  |
| GCST90199988 | rs4279398   | G | A | 0.0937543  | 0.130705   | 3.29E-06 | 22  |
| GCST90199988 | rs190951316 | A | G | 0.0145833  | -0.320897  | 2.52E-06 | 22  |
| GCST90199988 | rs6593010   | G | A | 0.346074   | -0.0846514 | 9.18E-07 | 24  |
| GCST90199988 | rs76920826  | A | C | 0.158389   | 0.103596   | 6.25E-06 | 20  |
| GCST90199988 | rs75047119  | T | C | 0.0158686  | -0.298219  | 6.08E-06 | 20  |
| GCST90199988 | rs10144811  | C | T | 0.460055   | 0.0826835  | 9.04E-07 | 24  |
| GCST90199988 | rs62388412  | A | G | 0.121005   | -0.112766  | 8.83E-06 | 20  |
| GCST90199988 | rs145634396 | G | C | 0.245069   | 0.0850012  | 9.76E-06 | 20  |
| GCST90199988 | rs183840159 | C | A | 0.0236019  | -0.244642  | 7.84E-06 | 20  |
| GCST90199988 | rs75233874  | G | C | 0.043149   | -0.184824  | 8.18E-06 | 20  |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90199988 | rs138503264 | A | C | 0.0497581  | 0.172178   | 5.51E-06 | 21 |
| GCST90199988 | rs140442472 | C | G | 0.0185649  | -0.292971  | 1.68E-06 | 23 |
| GCST90199988 | rs62017884  | G | A | 0.179792   | -0.0965342 | 6.57E-06 | 20 |
| GCST90199988 | rs144208208 | A | G | 0.0385653  | 0.193616   | 8.15E-06 | 20 |
| GCST90199988 | rs62112594  | T | C | 0.282183   | -0.0846167 | 5.56E-06 | 21 |
| GCST90199988 | rs1841655   | T | G | 0.0372473  | 0.196582   | 6.31E-06 | 20 |
| GCST90199988 | rs76320907  | T | C | 0.0270569  | 0.224686   | 8.08E-06 | 20 |
| GCST90199988 | rs114644345 | A | G | 0.0290376  | -0.231096  | 2.06E-06 | 23 |
| GCST90199990 | rs10918652  | G | A | 0.0795315  | -0.131945  | 3.45E-06 | 22 |
| GCST90199990 | rs77921124  | T | C | 0.165661   | -0.0926965 | 8.29E-06 | 20 |
| GCST90199990 | rs115151170 | C | T | 0.0115076  | -0.324957  | 5.68E-06 | 21 |
| GCST90199990 | rs479061    | A | C | 0.275659   | 0.0794249  | 6.02E-06 | 20 |
| GCST90199990 | rs6839814   | A | C | 0.10636    | -0.116885  | 2.73E-06 | 22 |
| GCST90199990 | rs117728044 | G | A | 0.0188146  | -0.255374  | 6.04E-06 | 20 |
| GCST90199990 | rs115520044 | A | G | 0.0167092  | 0.303512   | 3.44E-07 | 26 |
| GCST90199990 | rs73073176  | T | C | 0.131337   | -0.101262  | 8.43E-06 | 20 |
| GCST90199990 | rs118074685 | C | T | 0.0510998  | 0.153099   | 7.91E-06 | 20 |
| GCST90199990 | rs75284213  | T | C | 0.00723394 | -0.443644  | 1.00E-06 | 24 |
| GCST90199990 | rs4856225   | T | C | 0.795302   | 0.0849485  | 7.10E-06 | 20 |
| GCST90199990 | rs17324835  | A | G | 0.0897967  | 0.131383   | 9.29E-07 | 24 |
| GCST90199990 | rs1995667   | A | G | 0.303248   | 0.0733215  | 9.89E-06 | 20 |
| GCST90199990 | rs114371828 | T | C | 0.0167031  | -0.266759  | 6.43E-06 | 20 |
| GCST90199990 | rs9409510   | A | G | 0.696854   | 0.0778406  | 2.74E-06 | 22 |
| GCST90199990 | rs919217    | C | T | 0.150897   | -0.0984911 | 3.52E-06 | 22 |
| GCST90199990 | rs5997787   | C | T | 0.556178   | 0.0717023  | 4.77E-06 | 21 |
| GCST90199990 | rs1381273   | T | C | 0.468088   | 0.0707861  | 3.80E-06 | 21 |
| GCST90199990 | rs141365120 | T | A | 0.0180158  | 0.258189   | 5.75E-06 | 21 |
| GCST90199990 | rs73250695  | G | A | 0.0477491  | -0.17561   | 9.12E-07 | 24 |
| GCST90199990 | rs17008088  | T | C | 0.0248653  | 0.253034   | 2.64E-07 | 26 |
| GCST90199990 | rs2472297   | T | C | 0.24997    | 0.0894363  | 3.22E-07 | 26 |
| GCST90199990 | rs1594297   | A | G | 0.974219   | 0.218163   | 9.73E-06 | 20 |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90199995 | rs10947251  | A | G | 0.0429962  | 0.164097   | 2.45E-06 | 22  |
| GCST90199995 | rs2552212   | C | G | 0.726736   | 0.0798705  | 1.24E-06 | 24  |
| GCST90199995 | rs55672367  | T | C | 0.238924   | -0.0749315 | 8.30E-06 | 20  |
| GCST90199995 | rs577846777 | T | C | 0.00970454 | -0.341245  | 2.46E-06 | 22  |
| GCST90199995 | rs11136603  | G | T | 0.337661   | 0.0682078  | 9.80E-06 | 20  |
| GCST90199995 | rs7160525   | A | G | 0.163943   | 0.172281   | 8.85E-20 | 83  |
| GCST90199995 | rs1505614   | T | C | 0.32161    | 0.0670886  | 9.80E-06 | 20  |
| GCST90199995 | rs75028074  | A | G | 0.0318098  | -0.178694  | 9.09E-06 | 20  |
| GCST90199995 | rs3803757   | A | C | 0.128746   | -0.0949647 | 7.41E-06 | 20  |
| GCST90199995 | rs113976840 | A | G | 0.0152766  | -0.263963  | 4.40E-06 | 21  |
| GCST90199995 | rs72853900  | A | G | 0.197021   | -0.084268  | 2.64E-06 | 22  |
| GCST90199995 | rs111428438 | T | C | 0.0440644  | -0.164755  | 2.24E-06 | 22  |
| GCST90199995 | rs458862    | C | T | 0.608615   | -0.0662379 | 5.39E-06 | 21  |
| GCST90199995 | rs76673557  | T | C | 0.0553898  | 0.156528   | 5.17E-07 | 25  |
| GCST90199995 | rs12590249  | T | A | 0.042174   | -0.163286  | 4.23E-06 | 21  |
| GCST90199995 | rs12662965  | A | G | 0.107635   | 0.103939   | 6.63E-06 | 20  |
| GCST90199995 | rs72784204  | C | A | 0.0719411  | -0.123318  | 5.81E-06 | 21  |
| GCST90199995 | rs180855603 | A | G | 0.0108844  | 0.30509    | 7.48E-06 | 20  |
| GCST90199995 | rs1535      | G | A | 0.342614   | 0.186621   | 9.84E-37 | 160 |
| GCST90199995 | rs142797821 | T | G | 0.00705882 | -0.399363  | 2.46E-06 | 22  |
| GCST90199995 | rs140182208 | C | T | 0.00309521 | -0.580148  | 5.36E-06 | 21  |
| GCST90199995 | rs4804286   | C | G | 0.223385   | -0.113164  | 1.06E-10 | 42  |
| GCST90199995 | rs77913939  | C | G | 0.0158965  | 0.269394   | 1.79E-06 | 23  |
| GCST90199995 | rs148904503 | T | C | 0.0189553  | 0.241374   | 3.12E-06 | 22  |
| GCST90199995 | rs1554600   | C | G | 0.0220262  | 0.217804   | 6.70E-06 | 20  |
| GCST90199995 | rs78721618  | C | T | 0.0144195  | -0.264994  | 8.81E-06 | 20  |
| GCST90200011 | rs9610316   | A | G | 0.378435   | -0.070835  | 3.74E-06 | 21  |
| GCST90200011 | rs17749359  | T | G | 0.50802    | 0.0678442  | 2.83E-06 | 22  |
| GCST90200011 | rs181508533 | A | G | 0.108004   | -0.110869  | 1.72E-06 | 23  |
| GCST90200011 | rs78795544  | T | C | 0.0211962  | 0.22351    | 6.62E-06 | 20  |
| GCST90200011 | rs1425592   | G | A | 0.563799   | -0.0656783 | 7.67E-06 | 20  |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200011 | rs117173897 | A | T | 0.0327787  | -0.18296   | 7.29E-06 | 20  |
| GCST90200011 | rs79392392  | A | G | 0.0130488  | 0.310602   | 7.43E-07 | 24  |
| GCST90200011 | rs11827039  | A | G | 0.0709666  | -0.12731   | 5.76E-06 | 21  |
| GCST90200011 | rs79132106  | T | C | 0.0682344  | 0.132689   | 2.79E-06 | 22  |
| GCST90200011 | rs4899619   | C | T | 0.442463   | 0.0643389  | 9.41E-06 | 20  |
| GCST90200011 | rs11653985  | A | G | 0.0210449  | -0.228077  | 5.48E-06 | 21  |
| GCST90200011 | rs5748937   | T | C | 0.0463614  | 0.156593   | 7.66E-06 | 20  |
| GCST90200011 | rs12429889  | C | T | 0.13679    | 0.096235   | 4.30E-06 | 21  |
| GCST90200011 | rs813584    | G | C | 0.731223   | 0.0763369  | 3.79E-06 | 21  |
| GCST90200011 | rs77924615  | A | G | 0.192385   | -0.0994104 | 8.04E-08 | 29  |
| GCST90200011 | rs78330770  | C | A | 0.0199269  | -0.237958  | 3.89E-06 | 21  |
| GCST90200011 | rs78649302  | A | G | 0.0658778  | 0.146387   | 3.44E-07 | 26  |
| GCST90200011 | rs115975251 | C | A | 0.00957084 | -0.375449  | 3.96E-07 | 26  |
| GCST90200011 | rs111373318 | T | C | 0.0708085  | 0.136621   | 1.83E-06 | 23  |
| GCST90200011 | rs7622941   | A | G | 0.238506   | 0.0785632  | 5.36E-06 | 21  |
| GCST90200011 | rs75401737  | A | G | 0.036557   | 0.172364   | 6.99E-06 | 20  |
| GCST90200011 | rs76504354  | T | A | 0.0425207  | -0.163777  | 4.56E-06 | 21  |
| GCST90200011 | rs72861763  | T | C | 0.120478   | -0.156373  | 1.21E-12 | 50  |
| GCST90200011 | rs76965798  | C | T | 0.0228742  | 0.234686   | 1.11E-06 | 24  |
| GCST90200030 | rs34393429  | T | C | 0.0864394  | 0.127775   | 2.42E-06 | 22  |
| GCST90200030 | rs7618692   | C | A | 0.320975   | 0.0737885  | 5.60E-06 | 21  |
| GCST90200030 | rs143494363 | C | T | 0.102648   | -0.12369   | 1.54E-06 | 23  |
| GCST90200030 | rs142890858 | T | C | 0.0137332  | 0.31298    | 1.86E-06 | 23  |
| GCST90200030 | rs7993596   | G | A | 0.145495   | 0.107811   | 5.24E-07 | 25  |
| GCST90200030 | rs200497818 | A | T | 0.0115118  | 0.317156   | 6.62E-06 | 20  |
| GCST90200030 | rs174546    | T | C | 0.339963   | 0.295385   | 1.02E-79 | 357 |
| GCST90200030 | rs4277101   | G | A | 0.327955   | -0.073879  | 9.00E-06 | 20  |
| GCST90200030 | rs7113302   | T | G | 0.498546   | -0.0704775 | 5.69E-06 | 21  |
| GCST90200030 | rs708272    | A | G | 0.436153   | 0.0672805  | 9.81E-06 | 20  |
| GCST90200030 | rs35988618  | C | G | 0.294468   | -0.0795882 | 1.90E-06 | 23  |
| GCST90200030 | rs144222463 | T | C | 0.0097546  | 0.351889   | 4.17E-06 | 21  |

|              |             |   |   |           |            |          |     |
|--------------|-------------|---|---|-----------|------------|----------|-----|
| GCST90200030 | rs12546431  | T | C | 0.27647   | 0.075868   | 6.95E-06 | 20  |
| GCST90200030 | rs4395533   | A | G | 0.628021  | -0.0777464 | 4.77E-07 | 25  |
| GCST90200030 | rs118058334 | C | T | 0.0133008 | -0.298144  | 6.39E-06 | 20  |
| GCST90200030 | rs61985979  | G | A | 0.56693   | -0.0728826 | 1.85E-06 | 23  |
| GCST90200030 | rs4887347   | A | C | 0.419598  | -0.0733099 | 1.89E-06 | 23  |
| GCST90200037 | rs187600749 | C | T | 0.0279873 | 0.199969   | 9.63E-06 | 20  |
| GCST90200037 | rs78047257  | T | C | 0.0419963 | -0.170419  | 4.73E-06 | 21  |
| GCST90200037 | rs2797616   | T | C | 0.530025  | -0.0705192 | 3.00E-06 | 22  |
| GCST90200037 | rs147159118 | A | C | 0.0965538 | 0.118169   | 3.02E-06 | 22  |
| GCST90200037 | rs183367966 | A | G | 0.0127315 | -0.301306  | 6.33E-06 | 20  |
| GCST90200037 | rs17351075  | G | A | 0.0399538 | -0.170809  | 8.76E-06 | 20  |
| GCST90200037 | rs17231506  | T | C | 0.324747  | 0.0741555  | 2.72E-06 | 22  |
| GCST90200037 | rs174546    | T | C | 0.340102  | 0.226865   | 1.94E-48 | 214 |
| GCST90200037 | rs1229984   | C | T | 0.970198  | -0.213963  | 7.91E-07 | 24  |
| GCST90200037 | rs4277101   | G | A | 0.328264  | -0.0749226 | 4.79E-06 | 21  |
| GCST90200037 | rs12928099  | A | C | 0.290762  | -0.0905156 | 3.02E-08 | 31  |
| GCST90200037 | rs74698608  | A | G | 0.0133292 | -0.299521  | 4.38E-06 | 21  |
| GCST90200037 | rs76056930  | G | A | 0.280344  | 0.0774047  | 2.97E-06 | 22  |
| GCST90200037 | rs439401    | C | T | 0.622355  | 0.0759245  | 9.35E-07 | 24  |
| GCST90200037 | rs117387072 | A | G | 0.0376658 | -0.195976  | 4.37E-07 | 26  |
| GCST90200037 | rs77343163  | T | G | 0.032023  | 0.190825   | 5.38E-06 | 21  |
| GCST90200037 | rs35801472  | T | C | 0.248813  | -0.0821246 | 1.63E-06 | 23  |
| GCST90200037 | rs12589095  | A | C | 0.241705  | 0.0779259  | 9.32E-06 | 20  |
| GCST90200037 | rs1168041   | C | T | 0.669071  | 0.100084   | 4.19E-10 | 39  |
| GCST90200037 | rs73891753  | C | T | 0.0115544 | 0.320298   | 4.09E-06 | 21  |
| GCST90200037 | rs11782110  | A | C | 0.286809  | -0.0783335 | 2.02E-06 | 23  |
| GCST90200037 | rs10810120  | C | T | 0.112961  | -0.119238  | 7.92E-07 | 24  |
| GCST90200043 | rs80077444  | C | T | 0.0474196 | -0.172258  | 8.34E-07 | 24  |
| GCST90200043 | rs8042993   | C | G | 0.180752  | 0.093422   | 1.82E-06 | 23  |
| GCST90200043 | rs76138881  | C | A | 0.0699964 | -0.138534  | 2.00E-06 | 23  |
| GCST90200043 | rs72904150  | T | C | 0.0358837 | -0.184051  | 5.21E-06 | 21  |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200043 | rs72627915  | A | C | 0.159242   | -0.0913356 | 9.04E-06 | 20  |
| GCST90200043 | rs3734398   | C | T | 0.425255   | -0.149909  | 2.27E-23 | 99  |
| GCST90200043 | rs3094415   | G | T | 0.912926   | 0.118907   | 9.42E-06 | 20  |
| GCST90200043 | rs79511864  | C | T | 0.0219447  | 0.231815   | 5.97E-06 | 20  |
| GCST90200043 | rs7209612   | C | T | 0.594473   | -0.0771389 | 4.55E-07 | 25  |
| GCST90200043 | rs11207979  | A | G | 0.341321   | -0.0960105 | 7.23E-10 | 38  |
| GCST90200043 | rs964184    | C | G | 0.868757   | -0.118755  | 8.43E-08 | 29  |
| GCST90200043 | rs75477351  | C | A | 0.0274531  | -0.204251  | 8.18E-06 | 20  |
| GCST90200043 | rs12425245  | T | A | 0.0558055  | -0.177402  | 5.47E-08 | 30  |
| GCST90200043 | rs6079653   | G | T | 0.744381   | 0.0774604  | 6.85E-06 | 20  |
| GCST90200043 | rs375462300 | T | A | 0.0221045  | 0.240455   | 2.93E-06 | 22  |
| GCST90200043 | rs181815661 | T | A | 0.00697816 | -0.396175  | 9.45E-06 | 20  |
| GCST90200043 | rs174546    | T | C | 0.338526   | -0.165729  | 7.39E-26 | 111 |
| GCST90200043 | rs12554087  | A | G | 0.151048   | -0.0934753 | 8.76E-06 | 20  |
| GCST90200043 | rs117740643 | A | G | 0.0327023  | 0.186012   | 8.35E-06 | 20  |
| GCST90200043 | rs17145750  | T | C | 0.154154   | -0.103854  | 5.27E-07 | 25  |
| GCST90200043 | rs1653774   | C | G | 0.816293   | -0.0874035 | 8.55E-06 | 20  |
| GCST90200043 | rs45596438  | A | C | 0.0298897  | -0.195336  | 7.16E-06 | 20  |
| GCST90200043 | rs142800334 | A | G | 0.0130313  | 0.324072   | 9.89E-07 | 24  |
| GCST90200052 | rs1853151   | T | G | 0.582338   | 0.0768124  | 1.04E-06 | 24  |
| GCST90200052 | rs12378769  | T | G | 0.527077   | -0.0692729 | 8.78E-06 | 20  |
| GCST90200052 | rs3827410   | A | C | 0.619715   | 0.075267   | 1.93E-06 | 23  |
| GCST90200052 | rs12515709  | T | G | 0.0143378  | 0.287809   | 8.17E-06 | 20  |
| GCST90200052 | rs1529728   | C | T | 0.552586   | -0.0701036 | 5.74E-06 | 21  |
| GCST90200052 | rs12130714  | T | A | 0.163288   | -0.101628  | 2.47E-06 | 22  |
| GCST90200052 | rs72719193  | A | G | 0.477783   | -0.226397  | 8.17E-51 | 225 |
| GCST90200052 | rs1801390   | T | C | 0.0282767  | -0.205546  | 7.07E-06 | 20  |
| GCST90200052 | rs12638225  | C | T | 0.269717   | -0.0798967 | 5.15E-06 | 21  |
| GCST90200052 | rs117382184 | A | G | 0.0544007  | -0.156788  | 3.02E-06 | 22  |
| GCST90200052 | rs11684134  | G | A | 0.421664   | 0.0760691  | 1.53E-06 | 23  |
| GCST90200052 | rs75006121  | T | C | 0.0585378  | 0.143726   | 9.58E-06 | 20  |

|              |             |   |   |            |            |           |     |
|--------------|-------------|---|---|------------|------------|-----------|-----|
| GCST90200052 | rs140298870 | A | G | 0.0226675  | 0.230071   | 9.79E-06  | 20  |
| GCST90200052 | rs77896676  | A | G | 0.0586427  | 0.151652   | 4.20E-06  | 21  |
| GCST90200052 | rs387779    | C | T | 0.846821   | -0.0985051 | 3.67E-06  | 21  |
| GCST90200052 | rs112946311 | A | G | 0.0124484  | -0.332741  | 1.44E-06  | 23  |
| GCST90200052 | rs77772961  | G | A | 0.0171241  | 0.267554   | 6.28E-06  | 20  |
| GCST90200052 | rs71420186  | A | G | 0.0632896  | 0.140347   | 8.38E-06  | 20  |
| GCST90200052 | rs72655034  | C | T | 0.0246191  | -0.22796   | 3.97E-06  | 21  |
| GCST90200052 | rs116565884 | A | G | 0.0101182  | -0.34712   | 6.42E-06  | 20  |
| GCST90200052 | rs4368984   | T | C | 0.397205   | 0.0725269  | 4.59E-06  | 21  |
| GCST90200052 | rs112134288 | A | G | 0.0257393  | 0.226904   | 2.31E-06  | 22  |
| GCST90200052 | rs12928099  | A | C | 0.29154    | 0.106269   | 2.43E-10  | 40  |
| GCST90200052 | rs3847305   | C | G | 0.148931   | -0.103262  | 1.44E-06  | 23  |
| GCST90200052 | rs6536059   | G | A | 0.232406   | -0.0819468 | 7.81E-06  | 20  |
| GCST90200052 | rs102275    | C | T | 0.344959   | -0.475997  | 1.00E-200 | 974 |
| GCST90200052 | rs72786786  | A | G | 0.310239   | 0.086804   | 2.91E-07  | 26  |
| GCST90200052 | rs116546840 | C | A | 0.148257   | -0.102146  | 2.95E-06  | 22  |
| GCST90200052 | rs1126242   | T | C | 0.104917   | 0.120285   | 1.55E-06  | 23  |
| GCST90200052 | rs76027443  | A | G | 0.186061   | -0.105346  | 8.94E-08  | 29  |
| GCST90200052 | rs75554919  | T | C | 0.00844471 | -0.394358  | 2.61E-06  | 22  |
| GCST90200052 | rs56671758  | C | T | 0.00762195 | -0.40374   | 4.98E-06  | 21  |
| GCST90200052 | rs76747111  | C | G | 0.035078   | -0.192624  | 4.37E-06  | 21  |
| GCST90200082 | rs983106    | T | C | 0.273131   | -0.0786822 | 7.98E-06  | 20  |
| GCST90200082 | rs964184    | C | G | 0.869039   | -0.120893  | 1.26E-07  | 28  |
| GCST90200082 | rs73018280  | A | G | 0.0115882  | 0.32172    | 8.07E-06  | 20  |
| GCST90200082 | rs11745394  | T | C | 0.0383817  | -0.182375  | 5.75E-06  | 21  |
| GCST90200082 | rs74968089  | A | G | 0.0472446  | 0.165093   | 6.91E-06  | 20  |
| GCST90200082 | rs12928099  | A | C | 0.290402   | -0.0900581 | 1.09E-07  | 28  |
| GCST90200082 | rs7782319   | G | A | 0.380402   | -0.0758862 | 4.13E-06  | 21  |
| GCST90200082 | rs117112830 | G | A | 0.0361152  | -0.185268  | 9.43E-06  | 20  |
| GCST90200082 | rs10180195  | C | T | 0.568222   | 0.0716721  | 5.66E-06  | 21  |
| GCST90200082 | rs141089920 | T | C | 0.00507894 | 0.485583   | 8.26E-06  | 20  |

|              |             |   |   |            |            |           |     |
|--------------|-------------|---|---|------------|------------|-----------|-----|
| GCST90200082 | rs1915170   | G | A | 0.139427   | -0.10044   | 7.06E-06  | 20  |
| GCST90200082 | rs77660324  | C | T | 0.00828119 | -0.389329  | 5.52E-06  | 21  |
| GCST90200082 | rs139943078 | T | G | 0.0272122  | -0.222287  | 3.41E-06  | 22  |
| GCST90200082 | rs6749880   | A | C | 0.0326114  | 0.195862   | 6.83E-06  | 20  |
| GCST90200082 | rs4236106   | C | T | 0.799264   | -0.0899706 | 3.85E-06  | 21  |
| GCST90200082 | rs10162642  | A | G | 0.209229   | -0.120489  | 2.77E-10  | 40  |
| GCST90200082 | rs72941170  | C | G | 0.172808   | -0.095949  | 4.31E-06  | 21  |
| GCST90200082 | rs77073981  | G | A | 0.0219593  | 0.238782   | 5.64E-06  | 21  |
| GCST90200082 | rs55716461  | T | C | 0.196376   | -0.090984  | 3.10E-06  | 22  |
| GCST90200082 | rs114638467 | C | T | 0.0117076  | -0.325121  | 7.24E-06  | 20  |
| GCST90200082 | rs77391663  | A | G | 0.182014   | -0.0905816 | 6.52E-06  | 20  |
| GCST90200082 | rs483082    | T | G | 0.223707   | 0.102702   | 2.70E-08  | 31  |
| GCST90200082 | rs61949546  | A | C | 0.0625459  | -0.142199  | 6.93E-06  | 20  |
| GCST90200082 | rs17457343  | T | C | 0.0253312  | -0.233969  | 1.89E-06  | 23  |
| GCST90200082 | rs111827738 | C | T | 0.0560736  | 0.153805   | 4.69E-06  | 21  |
| GCST90200082 | rs77510307  | T | C | 0.0476452  | -0.163323  | 6.00E-06  | 20  |
| GCST90200082 | rs2180795   | T | C | 0.953031   | -0.177725  | 1.15E-06  | 24  |
| GCST90200082 | rs230722    | G | T | 0.980476   | 0.282596   | 3.35E-07  | 26  |
| GCST90200082 | rs174546    | T | C | 0.340693   | 0.396042   | 6.63E-140 | 634 |
| GCST90200082 | rs488490    | A | C | 0.854224   | -0.240721  | 9.21E-28  | 119 |
| GCST90200082 | rs261290    | C | T | 0.655421   | -0.245651  | 2.40E-50  | 223 |
| GCST90200083 | rs13179609  | A | C | 0.330512   | -0.0742268 | 5.51E-06  | 21  |
| GCST90200083 | rs111513209 | C | A | 0.0174744  | -0.261547  | 9.00E-06  | 20  |
| GCST90200083 | rs102275    | C | T | 0.345968   | -0.168221  | 1.38E-25  | 109 |
| GCST90200083 | rs2254408   | A | C | 0.541779   | 0.0773869  | 3.91E-07  | 26  |
| GCST90200083 | rs35831868  | G | A | 0.213245   | 0.0833755  | 8.81E-06  | 20  |
| GCST90200083 | rs4528097   | C | G | 0.0879357  | 0.138866   | 3.58E-07  | 26  |
| GCST90200083 | rs4372543   | G | C | 0.373554   | -0.0772399 | 1.31E-06  | 23  |
| GCST90200083 | rs2070895   | A | G | 0.21591    | 0.106229   | 1.72E-08  | 32  |
| GCST90200083 | rs2068888   | A | G | 0.455882   | 0.073449   | 1.81E-06  | 23  |
| GCST90200083 | rs55808498  | T | C | 0.00933333 | -0.359926  | 5.62E-06  | 21  |

|              |             |   |   |            |            |           |     |
|--------------|-------------|---|---|------------|------------|-----------|-----|
| GCST90200083 | rs1077989   | C | A | 0.476476   | -0.356841  | 9.99E-126 | 569 |
| GCST90200083 | rs1146040   | A | G | 0.268308   | -0.0820967 | 3.44E-06  | 22  |
| GCST90200083 | rs10463719  | A | G | 0.362324   | 0.075199   | 2.15E-06  | 22  |
| GCST90200083 | rs138733313 | T | G | 0.00816277 | -0.391073  | 5.44E-06  | 21  |
| GCST90200083 | rs10144151  | G | T | 0.186354   | -0.100435  | 3.75E-07  | 26  |
| GCST90200083 | rs55959162  | G | T | 0.123992   | -0.115546  | 7.63E-07  | 24  |
| GCST90200083 | rs35657538  | T | G | 0.0426305  | -0.175005  | 3.44E-06  | 22  |
| GCST90200083 | rs141634832 | C | T | 0.0167959  | -0.278116  | 6.79E-06  | 20  |
| GCST90200083 | rs115179317 | C | A | 0.0224215  | 0.26404    | 4.59E-07  | 25  |
| GCST90200083 | rs11725288  | T | C | 0.146911   | -0.0984182 | 8.29E-06  | 20  |
| GCST90200083 | rs310643    | T | C | 0.0811512  | -0.126785  | 7.38E-06  | 20  |
| GCST90200083 | rs174418    | C | T | 0.594647   | -0.108969  | 1.06E-11  | 46  |
| GCST90200083 | rs1260338   | G | A | 0.43369    | 0.0890243  | 1.19E-08  | 33  |
| GCST90200083 | rs12149545  | A | G | 0.317989   | 0.144329   | 1.36E-18  | 77  |
| GCST90200083 | rs113965222 | T | A | 0.0462256  | 0.168941   | 4.25E-06  | 21  |
| GCST90200083 | rs10800887  | C | T | 0.370929   | 0.0743202  | 2.80E-06  | 22  |
| GCST90200083 | rs117462679 | C | T | 0.0159926  | 0.285761   | 2.29E-06  | 22  |
| GCST90200083 | rs11665175  | A | C | 0.244039   | -0.0887872 | 1.15E-06  | 24  |
| GCST90200083 | rs112420075 | T | A | 0.0164282  | 0.271879   | 8.29E-06  | 20  |
| GCST90200083 | rs12544703  | G | A | 0.183276   | -0.113683  | 1.53E-08  | 32  |
| GCST90200083 | rs112774387 | G | A | 0.0126521  | -0.314066  | 5.93E-06  | 21  |
| GCST90200083 | rs62481805  | C | T | 0.0385733  | 0.177738   | 7.41E-06  | 20  |
| GCST90200086 | rs7331503   | A | G | 0.160015   | -0.100779  | 1.54E-06  | 23  |
| GCST90200086 | rs3914025   | T | C | 0.532575   | 0.068619   | 7.89E-06  | 20  |
| GCST90200086 | rs12792825  | A | G | 0.0527059  | 0.158236   | 3.80E-06  | 21  |
| GCST90200086 | rs141767821 | G | A | 0.0206002  | 0.288958   | 8.09E-08  | 29  |
| GCST90200086 | rs74739396  | A | C | 0.0164155  | -0.270412  | 8.34E-06  | 20  |
| GCST90200086 | rs55749434  | A | C | 0.0181918  | -0.254861  | 8.30E-06  | 20  |
| GCST90200086 | rs56980477  | C | G | 0.0156346  | 0.283427   | 4.87E-06  | 21  |
| GCST90200086 | rs1555942   | A | T | 0.966007   | 0.200746   | 2.66E-06  | 22  |
| GCST90200086 | rs99780     | T | C | 0.343393   | -0.1932    | 3.53E-33  | 144 |

|              |             |   |   |             |            |          |     |
|--------------|-------------|---|---|-------------|------------|----------|-----|
| GCST90200086 | rs6120825   | C | A | 0.191648    | -0.0939872 | 1.33E-06 | 23  |
| GCST90200086 | rs7718402   | T | C | 0.907127    | -0.124462  | 2.92E-06 | 22  |
| GCST90200086 | rs776696    | G | A | 0.81017     | -0.0890862 | 5.35E-06 | 21  |
| GCST90200086 | rs3743470   | T | C | 0.294647    | 0.0864     | 5.45E-07 | 25  |
| GCST90200086 | rs11185279  | G | A | 0.536869    | 0.0696031  | 8.38E-06 | 20  |
| GCST90200086 | rs154447    | A | G | 0.700459    | 0.0745377  | 9.33E-06 | 20  |
| GCST90200086 | rs7785866   | A | G | 0.202802    | 0.0850594  | 9.88E-06 | 20  |
| GCST90200086 | rs71329908  | G | T | 0.0295847   | -0.207972  | 5.10E-06 | 21  |
| GCST90200086 | rs1437468   | C | A | 0.95974     | 0.185978   | 5.47E-06 | 21  |
| GCST90200086 | rs16971219  | T | C | 0.0157461   | -0.321102  | 1.79E-07 | 27  |
| GCST90200095 | rs7869844   | C | G | 0.817188    | 0.0866596  | 9.57E-06 | 20  |
| GCST90200095 | rs192540706 | T | C | 0.0239173   | -0.232307  | 2.31E-06 | 22  |
| GCST90200095 | rs75738537  | A | G | 0.0211009   | 0.236738   | 7.09E-06 | 20  |
| GCST90200095 | rs2180795   | T | C | 0.953302    | -0.164229  | 4.52E-06 | 21  |
| GCST90200095 | rs79028060  | A | G | 0.0840806   | -0.127396  | 2.60E-06 | 22  |
| GCST90200095 | rs174546    | T | C | 0.340301    | 0.236846   | 3.23E-51 | 227 |
| GCST90200095 | rs6987304   | A | C | 0.219904    | -0.0883784 | 1.78E-06 | 23  |
| GCST90200095 | rs12088521  | G | T | 0.215091    | -0.0839478 | 3.70E-06 | 21  |
| GCST90200095 | rs1274214   | C | T | 0.493072    | 0.073133   | 1.68E-06 | 23  |
| GCST90200095 | rs147743636 | T | C | 0.0055093   | -0.448163  | 9.21E-06 | 20  |
| GCST90200095 | rs890614    | C | T | 0.934214    | 0.146599   | 1.75E-06 | 23  |
| GCST90200095 | rs67170531  | A | G | 0.163723    | -0.0945801 | 3.62E-06 | 21  |
| GCST90200095 | rs143774075 | G | A | 0.000366883 | 1.7697     | 6.96E-06 | 20  |
| GCST90200095 | rs117387072 | A | G | 0.0374969   | -0.177328  | 7.22E-06 | 20  |
| GCST90200095 | rs61985979  | G | A | 0.566944    | -0.0696306 | 5.30E-06 | 21  |
| GCST90200095 | rs16889861  | G | A | 0.000734844 | -1.23584   | 9.10E-06 | 20  |
| GCST90200095 | rs11508026  | T | C | 0.431855    | 0.0766433  | 5.61E-07 | 25  |
| GCST90200095 | rs3108495   | T | C | 0.769444    | 0.0828459  | 3.76E-06 | 21  |
| GCST90200095 | rs4395533   | A | G | 0.627268    | -0.0688898 | 7.97E-06 | 20  |
| GCST90200095 | rs62188519  | C | T | 0.210071    | -0.088589  | 2.58E-06 | 22  |
| GCST90200095 | rs293381    | A | G | 0.426663    | -0.0719705 | 4.15E-06 | 21  |

|              |             |   |   |           |            |          |     |
|--------------|-------------|---|---|-----------|------------|----------|-----|
| GCST90200098 | rs79740996  | A | C | 0.0397796 | 0.20202    | 2.29E-07 | 27  |
| GCST90200098 | rs9378527   | C | T | 0.237424  | -0.081626  | 7.11E-06 | 20  |
| GCST90200098 | rs72823661  | A | G | 0.381654  | 0.0729222  | 3.31E-06 | 22  |
| GCST90200098 | rs72657953  | T | C | 0.0758202 | -0.12888   | 6.30E-06 | 20  |
| GCST90200098 | rs2398643   | T | C | 0.480887  | -0.0686295 | 9.88E-06 | 20  |
| GCST90200098 | rs116616732 | T | C | 0.0642981 | -0.138587  | 8.97E-06 | 20  |
| GCST90200098 | rs67402452  | T | C | 0.161031  | -0.0999715 | 1.24E-06 | 24  |
| GCST90200098 | rs4875412   | C | A | 0.934501  | 0.139011   | 5.06E-06 | 21  |
| GCST90200098 | rs1728911   | G | T | 0.433548  | 0.095074   | 6.75E-10 | 38  |
| GCST90200098 | rs62186066  | T | C | 0.11945   | -0.10858   | 3.27E-06 | 22  |
| GCST90200098 | rs117236185 | G | C | 0.0163431 | -0.284478  | 2.84E-06 | 22  |
| GCST90200098 | rs28795074  | A | G | 0.0748761 | -0.139413  | 3.97E-06 | 21  |
| GCST90200098 | rs10422209  | G | C | 0.132281  | -0.18493   | 1.13E-16 | 69  |
| GCST90200098 | rs12352776  | T | C | 0.311561  | 0.125436   | 2.27E-14 | 58  |
| GCST90200098 | rs61814884  | G | A | 0.0304826 | -0.199912  | 5.09E-06 | 21  |
| GCST90200098 | rs10463719  | A | G | 0.362125  | 0.0729055  | 3.33E-06 | 22  |
| GCST90200098 | rs247617    | A | C | 0.326169  | 0.0993477  | 6.21E-10 | 38  |
| GCST90200098 | rs174418    | C | T | 0.594132  | -0.0782869 | 7.71E-07 | 24  |
| GCST90200098 | rs17248720  | T | C | 0.113314  | -0.111046  | 2.87E-06 | 22  |
| GCST90200098 | rs3752246   | C | G | 0.825923  | 0.370376   | 3.05E-79 | 355 |
| GCST90200098 | rs2743289   | G | A | 0.137472  | -0.0989869 | 6.49E-06 | 20  |
| GCST90200098 | rs11775560  | G | A | 0.186356  | 0.0925398  | 2.29E-06 | 22  |
| GCST90200098 | rs118109869 | T | C | 0.0249296 | -0.222875  | 4.98E-06 | 21  |
| GCST90200098 | rs10965965  | T | C | 0.059122  | -0.14957   | 3.56E-06 | 21  |
| GCST90200098 | rs11138350  | C | T | 0.622601  | -0.0733399 | 5.29E-06 | 21  |
| GCST90200098 | rs11591147  | T | G | 0.018108  | -0.306358  | 6.24E-08 | 29  |
| GCST90200098 | rs12628919  | A | G | 0.0866869 | -0.220611  | 2.44E-16 | 67  |
| GCST90200098 | rs117130655 | G | A | 0.0181476 | -0.25846   | 5.84E-06 | 21  |
| GCST90200098 | rs117264441 | C | T | 0.0119713 | -0.312496  | 8.78E-06 | 20  |
| GCST90200100 | rs6935886   | C | T | 0.0157663 | 0.264287   | 3.43E-06 | 22  |
| GCST90200100 | rs62120427  | T | C | 0.073071  | 0.126367   | 6.29E-06 | 20  |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200100 | rs117339273 | T | C | 0.0145446  | 0.270398   | 4.84E-06 | 21  |
| GCST90200100 | rs117098421 | A | G | 0.0158134  | 0.26461    | 4.17E-06 | 21  |
| GCST90200100 | rs704016    | T | C | 0.167227   | -0.0859732 | 8.69E-06 | 20  |
| GCST90200100 | rs73695648  | A | C | 0.041384   | -0.163452  | 5.94E-06 | 21  |
| GCST90200100 | rs141471965 | T | C | 0.109677   | 0.146375   | 9.99E-11 | 42  |
| GCST90200100 | rs117568662 | A | G | 0.0359549  | -0.186013  | 1.30E-06 | 23  |
| GCST90200100 | rs142384244 | C | T | 0.0210604  | 0.226005   | 5.35E-06 | 21  |
| GCST90200100 | rs6044671   | T | G | 0.102903   | 0.107248   | 4.07E-06 | 21  |
| GCST90200100 | rs60412748  | C | T | 0.0173802  | 0.244662   | 6.60E-06 | 20  |
| GCST90200100 | rs112932931 | A | C | 0.0261674  | -0.208243  | 2.77E-06 | 22  |
| GCST90200100 | rs71439202  | C | T | 0.031208   | -0.181282  | 8.35E-06 | 20  |
| GCST90200100 | rs117272002 | T | G | 0.00037281 | -1.68822   | 5.17E-06 | 21  |
| GCST90200100 | rs117249960 | A | G | 0.081305   | -0.121448  | 4.74E-06 | 21  |
| GCST90200100 | rs73164873  | T | C | 0.0728822  | -0.124823  | 4.04E-06 | 21  |
| GCST90200100 | rs143450669 | G | A | 0.00281139 | -0.59981   | 7.73E-06 | 20  |
| GCST90200100 | rs142317920 | A | G | 0.0343488  | 0.181309   | 4.91E-06 | 21  |
| GCST90200100 | rs12607820  | A | C | 0.657138   | -0.0707871 | 2.63E-06 | 22  |
| GCST90200100 | rs12095065  | G | A | 0.0602321  | -0.132235  | 9.23E-06 | 20  |
| GCST90200100 | rs72771661  | G | A | 0.0454212  | -0.161821  | 1.78E-06 | 23  |
| GCST90200100 | rs57965817  | G | A | 0.126754   | -0.0977931 | 4.62E-06 | 21  |
| GCST90200100 | rs9614577   | G | C | 0.0425493  | -0.155337  | 7.99E-06 | 20  |
| GCST90200100 | rs117814140 | T | A | 0.0231374  | -0.210875  | 8.31E-06 | 20  |
| GCST90200109 | rs1597070   | T | C | 0.0802517  | 0.139169   | 1.52E-06 | 23  |
| GCST90200109 | rs1651059   | G | A | 0.086379   | 0.175082   | 5.31E-10 | 39  |
| GCST90200109 | rs3913298   | A | G | 0.02753    | -0.214853  | 8.20E-06 | 20  |
| GCST90200109 | rs174564    | G | A | 0.338294   | -0.326948  | 1.18E-87 | 394 |
| GCST90200109 | rs2043082   | A | G | 0.344137   | 0.0873336  | 2.63E-07 | 27  |
| GCST90200109 | rs58542926  | T | C | 0.0745506  | -0.209338  | 6.47E-12 | 47  |
| GCST90200109 | rs58580571  | C | A | 0.0340865  | 0.196288   | 7.04E-06 | 20  |
| GCST90200109 | rs117007549 | G | A | 0.00782564 | -0.409033  | 6.22E-06 | 20  |
| GCST90200109 | rs483082    | T | G | 0.224952   | 0.181667   | 7.98E-22 | 92  |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200109 | rs4374638   | C | T | 0.630582   | 0.0805117  | 1.92E-06 | 23 |
| GCST90200109 | rs2077334   | A | C | 0.137487   | -0.119622  | 2.15E-07 | 27 |
| GCST90200109 | rs61899030  | G | T | 0.310241   | 0.0784803  | 5.44E-06 | 21 |
| GCST90200109 | rs1077835   | G | A | 0.21913    | 0.0908698  | 2.70E-06 | 22 |
| GCST90200109 | rs58288813  | C | T | 0.0494262  | -0.164513  | 6.15E-06 | 20 |
| GCST90200109 | rs4599468   | A | G | 0.136519   | -0.110266  | 3.06E-06 | 22 |
| GCST90200109 | rs117420976 | A | G | 0.0137662  | -0.322051  | 2.55E-06 | 22 |
| GCST90200126 | rs140182208 | C | T | 0.00304136 | -0.552844  | 5.57E-06 | 21 |
| GCST90200126 | rs9501176   | C | G | 0.0429834  | 0.145485   | 9.68E-06 | 20 |
| GCST90200126 | rs79451015  | A | G | 0.0330498  | -0.177065  | 2.52E-06 | 22 |
| GCST90200126 | rs10849080  | T | C | 0.227201   | -0.0828198 | 2.17E-07 | 27 |
| GCST90200126 | rs145123877 | T | C | 0.0140319  | -0.251362  | 9.48E-06 | 20 |
| GCST90200126 | rs11246045  | C | T | 0.0932547  | 0.111255   | 1.98E-06 | 23 |
| GCST90200126 | rs7812898   | C | T | 0.879634   | 0.0969424  | 3.29E-06 | 22 |
| GCST90200126 | rs191055136 | T | G | 0.0071122  | -0.348572  | 9.91E-06 | 20 |
| GCST90200126 | rs150098540 | G | A | 0.0123015  | 0.308383   | 3.69E-07 | 26 |
| GCST90200126 | rs72608506  | G | C | 0.00666505 | 0.372963   | 5.95E-06 | 21 |
| GCST90200126 | rs117624372 | T | C | 0.0197441  | -0.215253  | 8.44E-06 | 20 |
| GCST90200126 | rs7160525   | A | G | 0.164578   | 0.161147   | 1.92E-19 | 81 |
| GCST90200126 | rs148058698 | C | G | 0.00825744 | -0.380176  | 2.96E-07 | 26 |
| GCST90200126 | rs1472632   | T | C | 0.0882389  | -0.110216  | 3.82E-06 | 21 |
| GCST90200126 | rs61888631  | C | T | 0.111152   | 0.095499   | 6.91E-06 | 20 |
| GCST90200126 | rs114186474 | G | C | 0.0475346  | -0.14106   | 9.30E-06 | 20 |
| GCST90200126 | rs869416    | G | C | 0.299951   | -0.0657873 | 8.49E-06 | 20 |
| GCST90200126 | rs7280639   | T | C | 0.328741   | -0.0650539 | 7.58E-06 | 20 |
| GCST90200126 | rs174621    | A | G | 0.223488   | -0.0792948 | 8.53E-07 | 24 |
| GCST90200126 | rs4964629   | T | C | 0.66739    | 0.0688665  | 1.55E-06 | 23 |
| GCST90200126 | rs573905    | G | A | 0.54522    | -0.0671079 | 7.43E-07 | 24 |
| GCST90200126 | rs35532899  | G | A | 0.213771   | 0.0772465  | 2.91E-06 | 22 |
| GCST90200126 | rs184275849 | T | C | 0.00957084 | -0.317293  | 3.86E-06 | 21 |
| GCST90200126 | rs10748614  | C | T | 0.802412   | 0.0844399  | 1.01E-06 | 24 |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200126 | rs174418    | C | T | 0.594132   | -0.0631397 | 6.00E-06 | 20 |
| GCST90200126 | rs1503277   | A | C | 0.540659   | -0.064619  | 2.96E-06 | 22 |
| GCST90200138 | rs61003774  | T | G | 0.384074   | -0.102949  | 3.16E-07 | 26 |
| GCST90200138 | rs11659899  | T | G | 0.067971   | -0.1749    | 7.57E-06 | 20 |
| GCST90200138 | rs76945758  | T | C | 0.0415507  | -0.222381  | 2.71E-06 | 22 |
| GCST90200138 | rs77207094  | C | T | 0.0190953  | -0.334482  | 1.51E-06 | 23 |
| GCST90200138 | rs116905900 | T | G | 0.0354887  | -0.238108  | 2.78E-06 | 22 |
| GCST90200138 | rs6764394   | C | T | 0.079011   | 0.158836   | 7.73E-06 | 20 |
| GCST90200138 | rs174533    | A | G | 0.280651   | -0.194368  | 1.48E-19 | 82 |
| GCST90200138 | rs75168837  | G | C | 0.10122    | 0.15203    | 1.83E-06 | 23 |
| GCST90200138 | rs56365156  | A | G | 0.0401446  | -0.245658  | 3.70E-07 | 26 |
| GCST90200138 | rs8024121   | G | T | 0.24267    | -0.111567  | 1.17E-06 | 24 |
| GCST90200138 | rs4740820   | T | C | 0.266345   | 0.1061     | 6.16E-07 | 25 |
| GCST90200138 | rs72892220  | C | G | 0.0259197  | 0.287216   | 1.57E-06 | 23 |
| GCST90200138 | rs34379782  | T | C | 0.017824   | 0.31974    | 7.03E-06 | 20 |
| GCST90200138 | rs35063547  | T | C | 0.0808963  | 0.157035   | 5.86E-06 | 21 |
| GCST90200138 | rs4540472   | A | C | 0.47349    | -0.0903641 | 2.54E-06 | 22 |
| GCST90200144 | rs12522503  | A | C | 0.0417197  | 0.177218   | 3.61E-06 | 21 |
| GCST90200144 | rs12975050  | C | G | 0.213948   | -0.0828311 | 8.39E-06 | 20 |
| GCST90200144 | rs2457971   | T | C | 0.59737    | 0.0792749  | 5.03E-07 | 25 |
| GCST90200144 | rs62086647  | G | A | 0.0206685  | 0.237916   | 8.36E-06 | 20 |
| GCST90200144 | rs75551193  | A | G | 0.0241096  | 0.240451   | 1.79E-06 | 23 |
| GCST90200144 | rs2346569   | C | T | 0.251994   | -0.0814863 | 4.55E-06 | 21 |
| GCST90200144 | rs2692768   | A | C | 0.105647   | 0.119598   | 1.98E-06 | 23 |
| GCST90200144 | rs147000073 | G | C | 0.0114271  | -0.363057  | 4.77E-07 | 25 |
| GCST90200144 | rs143694088 | T | G | 0.00686063 | 0.442869   | 2.01E-06 | 23 |
| GCST90200144 | rs59541669  | T | A | 0.417296   | 0.0740639  | 2.25E-06 | 22 |
| GCST90200144 | rs139288035 | T | C | 0.00529202 | -0.474122  | 7.96E-06 | 20 |
| GCST90200144 | rs61781290  | G | A | 0.258577   | 0.0876719  | 5.86E-07 | 25 |
| GCST90200144 | rs75598434  | T | C | 0.0512462  | 0.160405   | 3.23E-06 | 22 |
| GCST90200144 | rs12110470  | T | G | 0.182437   | 0.0870034  | 9.08E-06 | 20 |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200144 | rs10122720  | G | C | 0.625561   | 0.0707783  | 7.34E-06 | 20  |
| GCST90200144 | rs35162446  | G | C | 0.0717178  | 0.158023   | 1.40E-07 | 28  |
| GCST90200144 | rs58310495  | T | C | 0.156262   | 0.142514   | 1.22E-11 | 46  |
| GCST90200144 | rs6890486   | G | A | 0.192553   | 0.0873576  | 8.65E-06 | 20  |
| GCST90200144 | rs113486494 | A | G | 0.015871   | -0.280439  | 5.74E-06 | 21  |
| GCST90200144 | rs1033831   | T | C | 0.800375   | -0.0977498 | 4.54E-07 | 25  |
| GCST90200144 | rs12470864  | A | G | 0.386173   | -0.0846491 | 9.91E-08 | 28  |
| GCST90200144 | rs156403    | G | A | 0.704851   | -0.167644  | 1.18E-23 | 101 |
| GCST90200144 | rs55726556  | G | A | 0.0121548  | 0.312196   | 9.42E-06 | 20  |
| GCST90200144 | rs4841133   | G | A | 0.907964   | 0.121209   | 5.49E-06 | 21  |
| GCST90200144 | rs11709130  | A | G | 0.0195686  | 0.251483   | 7.61E-06 | 20  |
| GCST90200144 | rs12210538  | G | A | 0.235201   | -0.317629  | 3.70E-72 | 323 |
| GCST90200144 | rs11239541  | T | C | 0.320984   | 0.0928116  | 1.62E-08 | 32  |
| GCST90200144 | rs1171618   | C | T | 0.376144   | 0.0861119  | 6.71E-08 | 29  |
| GCST90200144 | rs117196697 | C | A | 0.04246    | -0.175367  | 4.12E-06 | 21  |
| GCST90200144 | rs7712578   | A | G | 0.0768984  | -0.129281  | 7.68E-06 | 20  |
| GCST90200144 | rs12191987  | A | G | 0.0219744  | -0.236087  | 8.22E-06 | 20  |
| GCST90200155 | rs576046618 | T | C | 0.0369255  | -0.211801  | 5.63E-06 | 21  |
| GCST90200155 | rs7095676   | C | T | 0.561049   | 0.0806313  | 7.63E-06 | 20  |
| GCST90200155 | rs117490375 | C | A | 0.0215771  | 0.272639   | 5.48E-06 | 21  |
| GCST90200155 | rs55789411  | T | C | 0.338925   | 0.0820803  | 8.42E-06 | 20  |
| GCST90200155 | rs10900463  | T | C | 0.505618   | 0.0801196  | 6.84E-06 | 20  |
| GCST90200155 | rs1257512   | T | C | 0.234419   | 0.101282   | 1.56E-06 | 23  |
| GCST90200155 | rs116888293 | A | C | 0.00877329 | -0.440014  | 2.77E-06 | 22  |
| GCST90200155 | rs142109544 | A | T | 0.00715508 | 0.48003    | 2.98E-06 | 22  |
| GCST90200155 | rs3813673   | C | G | 0.0148684  | -0.364498  | 4.53E-07 | 25  |
| GCST90200155 | rs2472297   | T | C | 0.253808   | 0.0929646  | 2.99E-06 | 22  |
| GCST90200155 | rs316023    | C | T | 0.379975   | -0.0847879 | 1.65E-06 | 23  |
| GCST90200155 | rs17758249  | A | G | 0.0260951  | 0.258469   | 2.51E-06 | 22  |
| GCST90200155 | rs76815286  | T | C | 0.0168504  | -0.302051  | 7.32E-06 | 20  |
| GCST90200155 | rs16933302  | G | A | 0.0580997  | -0.167731  | 6.90E-06 | 20  |

|              |             |   |   |             |            |          |    |
|--------------|-------------|---|---|-------------|------------|----------|----|
| GCST90200155 | rs9935503   | G | A | 0.55903     | 0.0778929  | 8.43E-06 | 20 |
| GCST90200155 | rs16996107  | A | G | 0.02127     | -0.280089  | 3.81E-06 | 21 |
| GCST90200155 | rs78113681  | T | A | 0.0437899   | -0.188896  | 9.33E-06 | 20 |
| GCST90200155 | rs7161784   | T | C | 0.350247    | 0.0863662  | 5.24E-06 | 21 |
| GCST90200155 | rs10412211  | T | G | 0.467867    | 0.0794101  | 6.75E-06 | 20 |
| GCST90200155 | rs9369064   | C | T | 0.928904    | -0.164862  | 1.46E-06 | 23 |
| GCST90200161 | rs28502343  | C | T | 0.0908477   | -0.120876  | 7.60E-06 | 20 |
| GCST90200161 | rs75724755  | A | G | 0.022942    | -0.231395  | 8.54E-06 | 20 |
| GCST90200161 | rs4459242   | T | C | 0.749628    | -0.0812765 | 7.48E-06 | 20 |
| GCST90200161 | rs2055428   | C | T | 0.0451918   | 0.168833   | 6.38E-06 | 20 |
| GCST90200161 | rs58951102  | T | C | 0.240925    | -0.0870341 | 2.19E-06 | 22 |
| GCST90200161 | rs7779972   | G | A | 0.304714    | 0.0790862  | 8.65E-06 | 20 |
| GCST90200161 | rs12797855  | T | C | 0.0628838   | -0.145052  | 7.24E-06 | 20 |
| GCST90200161 | rs118131193 | T | C | 0.000490376 | 1.66079    | 2.25E-06 | 22 |
| GCST90200161 | rs74368616  | A | G | 0.0196054   | -0.248726  | 6.21E-06 | 20 |
| GCST90200161 | rs2367288   | A | G | 0.707546    | 0.077233   | 8.35E-06 | 20 |
| GCST90200161 | rs184382445 | T | C | 0.00903726  | -0.374613  | 5.82E-06 | 21 |
| GCST90200161 | rs13126149  | G | A | 0.117133    | 0.107682   | 9.43E-06 | 20 |
| GCST90200161 | rs7635560   | C | A | 0.061936    | -0.14852   | 3.75E-06 | 21 |
| GCST90200161 | rs7570971   | A | C | 0.370173    | -0.0791954 | 4.66E-07 | 25 |
| GCST90200161 | rs72795669  | C | G | 0.112696    | -0.113966  | 5.24E-06 | 21 |
| GCST90200161 | rs143841240 | G | A | 0.0477012   | -0.17451   | 1.52E-06 | 23 |
| GCST90200161 | rs150870340 | T | G | 0.0100419   | 0.349122   | 8.84E-06 | 20 |
| GCST90200161 | rs111388296 | A | G | 0.02311     | -0.234877  | 5.58E-06 | 21 |
| GCST90200161 | rs79938962  | A | G | 0.0288343   | -0.233017  | 5.67E-07 | 25 |
| GCST90200161 | rs117547464 | A | G | 0.0287307   | -0.216447  | 3.07E-06 | 22 |
| GCST90200161 | rs111227872 | A | G | 0.0143721   | 0.292012   | 9.69E-06 | 20 |
| GCST90200161 | rs16947301  | C | T | 0.0298379   | 0.206256   | 6.25E-06 | 20 |
| GCST90200161 | rs10204080  | T | C | 0.386835    | 0.0729613  | 6.08E-06 | 20 |
| GCST90200171 | rs9809948   | G | C | 0.0634027   | 0.137473   | 7.50E-06 | 20 |
| GCST90200171 | rs74811952  | C | T | 0.0240069   | -0.220329  | 8.21E-06 | 20 |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200171 | rs7668556   | G | A | 0.540948   | -0.0665836 | 9.70E-06 | 20 |
| GCST90200171 | rs71439517  | C | T | 0.00763547 | -0.391551  | 6.18E-06 | 20 |
| GCST90200171 | rs9501929   | C | T | 0.0471814  | -0.176552  | 7.56E-07 | 24 |
| GCST90200171 | rs17124071  | G | A | 0.321663   | -0.0735267 | 6.29E-06 | 20 |
| GCST90200171 | rs2306053   | G | A | 0.138958   | -0.0967084 | 9.53E-06 | 20 |
| GCST90200171 | rs2369463   | C | T | 0.163674   | -0.0932527 | 5.19E-06 | 21 |
| GCST90200171 | rs7219584   | C | T | 0.0568793  | 0.163608   | 3.13E-07 | 26 |
| GCST90200171 | rs3795737   | C | T | 0.0586009  | -0.156771  | 1.06E-06 | 24 |
| GCST90200171 | rs3822433   | C | T | 0.662558   | 0.0701088  | 8.60E-06 | 20 |
| GCST90200171 | rs6572264   | C | A | 0.60055    | -0.0686195 | 7.27E-06 | 20 |
| GCST90200171 | rs7788282   | C | G | 0.092147   | 0.117256   | 4.98E-06 | 21 |
| GCST90200171 | rs931382    | G | A | 0.544864   | 0.0676043  | 6.72E-06 | 20 |
| GCST90200171 | rs116914058 | C | G | 0.0429134  | 0.165798   | 8.18E-06 | 20 |
| GCST90200171 | rs75640656  | G | A | 0.0263448  | -0.211358  | 4.75E-06 | 21 |
| GCST90200171 | rs113579942 | A | G | 0.0353491  | 0.195539   | 1.93E-06 | 23 |
| GCST90200171 | rs34427182  | T | A | 0.0662628  | 0.142431   | 2.02E-06 | 23 |
| GCST90200171 | rs114686372 | C | T | 0.0240596  | 0.249581   | 3.08E-07 | 26 |
| GCST90200171 | rs396050    | C | T | 0.743987   | -0.080834  | 2.67E-06 | 22 |
| GCST90200186 | rs73251787  | G | A | 0.0908171  | 0.132849   | 6.45E-06 | 20 |
| GCST90200186 | rs9365507   | G | A | 0.586805   | -0.0754817 | 8.63E-06 | 20 |
| GCST90200186 | rs12755613  | A | G | 0.310825   | 0.0812159  | 8.10E-06 | 20 |
| GCST90200186 | rs150769889 | T | C | 0.0513604  | 0.205847   | 7.37E-08 | 29 |
| GCST90200186 | rs150629880 | A | G | 0.00851986 | -0.414425  | 6.16E-06 | 20 |
| GCST90200186 | rs72790786  | G | A | 0.123632   | 0.117451   | 6.88E-06 | 20 |
| GCST90200186 | rs117758483 | A | G | 0.0447061  | -0.178842  | 9.83E-06 | 20 |
| GCST90200186 | rs139503849 | A | G | 0.00790313 | -0.426619  | 7.62E-06 | 20 |
| GCST90200186 | rs11590237  | G | C | 0.110565   | 0.122613   | 6.22E-06 | 20 |
| GCST90200186 | rs138218402 | G | T | 0.0177897  | -0.282099  | 7.98E-06 | 20 |
| GCST90200186 | rs112372943 | C | G | 0.0750328  | 0.142915   | 9.64E-06 | 20 |
| GCST90200186 | rs114534035 | G | A | 0.0325961  | -0.228931  | 1.37E-06 | 23 |
| GCST90200186 | rs10141997  | A | C | 0.255133   | 0.0871385  | 5.99E-06 | 20 |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200186 | rs73005543  | C | T | 0.00955552 | -0.389715  | 7.07E-06 | 20 |
| GCST90200186 | rs6869382   | T | C | 0.337816   | 0.081454   | 4.72E-06 | 21 |
| GCST90200186 | rs59567925  | A | G | 0.267912   | 0.0930346  | 1.21E-06 | 24 |
| GCST90200186 | rs4464786   | C | T | 0.58524    | 0.100146   | 3.67E-09 | 35 |
| GCST90200186 | rs10039028  | G | C | 0.256572   | -0.0854513 | 9.42E-06 | 20 |
| GCST90200186 | rs6783893   | C | T | 0.739319   | 0.0859493  | 6.82E-06 | 20 |
| GCST90200186 | rs56241897  | T | C | 0.0743283  | -0.162884  | 5.35E-07 | 25 |
| GCST90200186 | rs62244402  | A | C | 0.0459154  | -0.185412  | 3.04E-06 | 22 |
| GCST90200186 | rs4148324   | G | T | 0.327487   | 0.107194   | 2.04E-09 | 36 |
| GCST90200186 | rs1711178   | T | C | 0.890126   | 0.122746   | 4.32E-06 | 21 |
| GCST90200186 | rs67235003  | G | A | 0.175073   | -0.104507  | 2.42E-06 | 22 |
| GCST90200186 | rs61372828  | A | T | 0.00493254 | 0.563626   | 2.80E-06 | 22 |
| GCST90200186 | rs2560611   | T | C | 0.0816102  | -0.147203  | 1.84E-06 | 23 |
| GCST90200187 | rs698057    | T | C | 0.0322994  | 0.208524   | 4.62E-07 | 25 |
| GCST90200187 | rs73118841  | T | C | 0.0176878  | 0.253276   | 6.01E-06 | 20 |
| GCST90200187 | rs200257    | T | C | 0.100518   | -0.115916  | 2.17E-06 | 22 |
| GCST90200187 | rs146629144 | T | C | 0.0289758  | 0.2059     | 2.67E-06 | 22 |
| GCST90200187 | rs9561312   | A | G | 0.208844   | 0.084409   | 3.84E-06 | 21 |
| GCST90200187 | rs72906474  | T | G | 0.591565   | -0.0712128 | 2.28E-06 | 22 |
| GCST90200187 | rs1998757   | C | G | 0.171377   | 0.088776   | 4.95E-06 | 21 |
| GCST90200187 | rs117150448 | C | A | 0.0168436  | -0.263535  | 4.38E-06 | 21 |
| GCST90200187 | rs197490    | C | T | 0.399408   | -0.0697331 | 3.46E-06 | 22 |
| GCST90200187 | rs116498185 | T | C | 0.0619013  | 0.139296   | 4.21E-06 | 21 |
| GCST90200187 | rs12628438  | C | G | 0.170306   | -0.0868646 | 8.25E-06 | 20 |
| GCST90200187 | rs11626972  | G | A | 0.422844   | -0.0846601 | 2.25E-08 | 31 |
| GCST90200187 | rs116885450 | T | C | 0.0433301  | -0.164975  | 6.91E-06 | 20 |
| GCST90200187 | rs11052059  | A | G | 0.0546979  | 0.153639   | 2.16E-06 | 22 |
| GCST90200188 | rs117924063 | T | C | 0.0133439  | 0.285891   | 8.61E-06 | 20 |
| GCST90200188 | rs112286139 | T | C | 0.0153036  | -0.276675  | 5.07E-06 | 21 |
| GCST90200188 | rs2246012   | C | T | 0.160041   | -0.0883126 | 8.96E-06 | 20 |
| GCST90200188 | rs116883443 | A | G | 0.0179246  | 0.260864   | 2.69E-06 | 22 |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200188 | rs1026029   | C | T | 0.0529104  | 0.148145   | 6.84E-06 | 20 |
| GCST90200188 | rs137959039 | T | A | 0.0106396  | 0.32461    | 6.15E-06 | 20 |
| GCST90200188 | rs10841762  | T | A | 0.351847   | -0.0694019 | 5.68E-06 | 21 |
| GCST90200188 | rs141300506 | A | G | 0.0143242  | -0.289768  | 2.64E-06 | 22 |
| GCST90200188 | rs111243650 | A | G | 0.0667742  | 0.133271   | 9.34E-06 | 20 |
| GCST90200188 | rs10772906  | A | G | 0.425808   | 0.0684034  | 4.47E-06 | 21 |
| GCST90200188 | rs11244629  | G | A | 0.769231   | -0.122642  | 6.80E-12 | 47 |
| GCST90200188 | rs140531985 | A | G | 0.0113775  | 0.308235   | 8.78E-06 | 20 |
| GCST90200188 | rs141220721 | A | C | 0.0108444  | 0.337844   | 1.95E-06 | 23 |
| GCST90200188 | rs150582767 | G | A | 0.00311051 | 0.637192   | 1.48E-06 | 23 |
| GCST90200188 | rs1031162   | T | C | 0.316134   | 0.0751604  | 2.81E-06 | 22 |
| GCST90200188 | rs34880135  | A | G | 0.236532   | 0.0840728  | 1.31E-06 | 23 |
| GCST90200188 | rs1986953   | C | T | 0.0308416  | 0.207473   | 9.43E-07 | 24 |
| GCST90200188 | rs183183414 | T | A | 0.00498629 | 0.494558   | 3.00E-06 | 22 |
| GCST90200188 | rs148494243 | T | G | 0.0474343  | -0.154189  | 9.85E-06 | 20 |
| GCST90200188 | rs79832779  | T | C | 0.0194701  | 0.240637   | 6.12E-06 | 20 |
| GCST90200188 | rs6909739   | T | A | 0.2        | 0.0850972  | 5.40E-06 | 21 |
| GCST90200188 | rs8056893   | A | C | 0.726812   | -0.113088  | 6.73E-12 | 47 |
| GCST90200188 | rs13073206  | T | C | 0.120913   | 0.10203    | 5.90E-06 | 21 |
| GCST90200188 | rs2115477   | T | C | 0.478391   | -0.066045  | 8.13E-06 | 20 |
| GCST90200215 | rs79561604  | C | T | 0.127926   | 0.10487    | 6.49E-06 | 20 |
| GCST90200215 | rs35947652  | G | A | 0.065726   | -0.139365  | 7.51E-06 | 20 |
| GCST90200215 | rs6431630   | A | G | 0.106068   | -0.125267  | 5.32E-07 | 25 |
| GCST90200215 | rs114371828 | T | C | 0.01674    | -0.284416  | 1.77E-06 | 23 |
| GCST90200215 | rs45603636  | A | G | 0.010395   | -0.33835   | 9.01E-06 | 20 |
| GCST90200215 | rs147503040 | A | G | 0.0253676  | 0.217599   | 8.02E-06 | 20 |
| GCST90200215 | rs2472297   | T | C | 0.250091   | 0.0943555  | 8.80E-08 | 29 |
| GCST90200215 | rs79143095  | T | C | 0.0999022  | -0.113195  | 8.95E-06 | 20 |
| GCST90200215 | rs60483208  | A | T | 0.0283077  | -0.211165  | 6.33E-06 | 20 |
| GCST90200215 | rs144745734 | G | C | 0.0125798  | 0.318443   | 4.19E-06 | 21 |
| GCST90200215 | rs4856225   | T | C | 0.795349   | 0.087598   | 4.23E-06 | 21 |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200215 | rs112498198 | A | T | 0.0013395  | -0.977798  | 3.18E-06 | 22  |
| GCST90200215 | rs16929581  | T | C | 0.0267552  | 0.218386   | 4.38E-06 | 21  |
| GCST90200215 | rs17008088  | T | C | 0.0250708  | 0.243216   | 8.34E-07 | 24  |
| GCST90200215 | rs143550070 | G | T | 0.0140414  | -0.292803  | 8.84E-06 | 20  |
| GCST90200215 | rs62143471  | A | G | 0.0156212  | -0.282433  | 5.58E-06 | 21  |
| GCST90200215 | rs7334967   | C | T | 0.18382    | 0.0900055  | 5.40E-06 | 21  |
| GCST90200215 | rs116059601 | G | A | 0.0167985  | -0.300172  | 4.58E-07 | 25  |
| GCST90200215 | rs1995667   | A | G | 0.303071   | 0.0765294  | 4.73E-06 | 21  |
| GCST90200215 | rs180685113 | G | A | 0.0151959  | -0.278061  | 8.66E-06 | 20  |
| GCST90200215 | rs141568347 | A | G | 0.00324954 | -0.614596  | 5.74E-06 | 21  |
| GCST90200215 | rs140766381 | G | A | 0.00909646 | -0.35941   | 8.54E-06 | 20  |
| GCST90200215 | rs6964395   | C | G | 0.179064   | -0.0907075 | 6.14E-06 | 20  |
| GCST90200219 | rs11643738  | G | C | 0.0915638  | -0.163487  | 7.50E-06 | 20  |
| GCST90200219 | rs115742627 | A | G | 0.0216652  | 0.325094   | 6.47E-06 | 20  |
| GCST90200219 | rs188947242 | A | G | 0.00693497 | -0.571808  | 5.97E-06 | 20  |
| GCST90200219 | rs111255923 | T | C | 0.0132894  | 0.427911   | 3.12E-06 | 22  |
| GCST90200219 | rs112122571 | T | C | 0.0862898  | -0.169599  | 5.60E-06 | 21  |
| GCST90200219 | rs11740383  | G | A | 0.0852246  | 0.172515   | 5.81E-06 | 21  |
| GCST90200219 | rs143517367 | T | G | 0.0175338  | -0.363334  | 5.70E-06 | 21  |
| GCST90200219 | rs76054336  | A | T | 0.044288   | 0.224076   | 9.34E-06 | 20  |
| GCST90200219 | rs759992    | G | A | 0.543846   | 0.0962401  | 4.39E-06 | 21  |
| GCST90200219 | rs1324512   | C | T | 0.545186   | -0.0972017 | 3.52E-06 | 22  |
| GCST90200219 | rs2046535   | C | T | 0.512306   | 0.106222   | 3.57E-07 | 26  |
| GCST90200219 | rs76760489  | A | G | 0.140155   | 0.154086   | 2.58E-07 | 27  |
| GCST90200219 | rs7159950   | A | G | 0.0478735  | 0.221985   | 4.87E-06 | 21  |
| GCST90200219 | rs55999991  | C | T | 0.144517   | -0.142704  | 2.89E-06 | 22  |
| GCST90200219 | rs9873941   | T | G | 0.820246   | 0.130223   | 3.39E-06 | 22  |
| GCST90200219 | rs138204523 | T | G | 0.00672288 | 0.571955   | 5.88E-06 | 21  |
| GCST90200219 | rs28893225  | T | C | 0.606985   | -0.0960703 | 8.89E-06 | 20  |
| GCST90200219 | rs34164133  | T | C | 0.755324   | 0.33024    | 3.48E-32 | 139 |
| GCST90200219 | rs13250220  | A | G | 0.690195   | -0.125365  | 2.71E-08 | 31  |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200219 | rs58506471  | A | G | 0.115744   | -0.156362  | 2.94E-06 | 22 |
| GCST90200324 | rs4715315   | A | G | 0.594559   | 0.083613   | 8.36E-06 | 20 |
| GCST90200324 | rs4954022   | G | A | 0.73839    | -0.097994  | 3.73E-06 | 21 |
| GCST90200324 | rs11664285  | C | T | 0.0818627  | -0.148322  | 9.61E-06 | 20 |
| GCST90200324 | rs117759348 | T | C | 0.0145833  | -0.372426  | 1.05E-06 | 24 |
| GCST90200324 | rs11953426  | T | C | 0.172693   | 0.106181   | 9.10E-06 | 20 |
| GCST90200324 | rs144629700 | T | C | 0.0412761  | 0.206801   | 6.71E-06 | 20 |
| GCST90200324 | rs145331393 | A | G | 0.00784109 | -0.551958  | 6.84E-08 | 29 |
| GCST90200324 | rs189789743 | G | A | 0.00295036 | -0.749443  | 7.78E-06 | 20 |
| GCST90200324 | rs9912789   | T | C | 0.494245   | 0.0843024  | 5.68E-06 | 21 |
| GCST90200324 | rs60143203  | T | A | 0.100105   | 0.136716   | 5.56E-06 | 21 |
| GCST90200324 | rs114045554 | T | C | 0.0100087  | 0.427085   | 3.27E-06 | 22 |
| GCST90200324 | rs638155    | T | A | 0.0985891  | 0.149769   | 8.16E-07 | 24 |
| GCST90200324 | rs16858175  | C | T | 0.0514757  | 0.184805   | 5.74E-06 | 21 |
| GCST90200324 | rs6801939   | G | C | 0.0211501  | 0.2907     | 5.58E-06 | 21 |
| GCST90200324 | rs12029767  | G | A | 0.039515   | 0.210497   | 6.93E-06 | 20 |
| GCST90200324 | rs77802035  | T | C | 0.0137391  | -0.35516   | 5.43E-06 | 21 |
| GCST90200324 | rs894502    | G | A | 0.280525   | 0.100571   | 7.98E-07 | 24 |
| GCST90200324 | rs188235581 | T | C | 0.00783699 | 0.488541   | 2.36E-06 | 22 |
| GCST90200324 | rs4078443   | C | T | 0.741677   | 0.0953701  | 5.80E-06 | 21 |
| GCST90200324 | rs4613992   | C | T | 0.0994442  | 0.150668   | 7.51E-07 | 24 |
| GCST90200324 | rs12188472  | T | C | 0.149484   | 0.120733   | 2.20E-06 | 22 |
| GCST90200324 | rs138134798 | G | A | 0.0113102  | 0.441218   | 2.65E-07 | 26 |
| GCST90200324 | rs77503991  | T | C | 0.174996   | -0.115706  | 1.34E-06 | 23 |
| GCST90200324 | rs72798651  | G | T | 0.0869526  | -0.151738  | 3.66E-06 | 21 |
| GCST90200324 | rs850239    | T | A | 0.30225    | -0.0921491 | 3.25E-06 | 22 |
| GCST90200324 | rs72951392  | A | G | 0.0312067  | -0.238442  | 4.76E-06 | 21 |
| GCST90200324 | rs6914546   | T | C | 0.124804   | 0.123023   | 8.03E-06 | 20 |
| GCST90200329 | rs7528963   | G | A | 0.190274   | -0.0898961 | 6.29E-06 | 20 |
| GCST90200329 | rs62488266  | A | T | 0.0334393  | -0.214694  | 6.10E-07 | 25 |
| GCST90200329 | rs6051418   | T | G | 0.0133333  | -0.319104  | 1.99E-06 | 23 |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200329 | rs555052    | C | T | 0.444191   | 0.0707745  | 8.72E-06 | 20 |
| GCST90200329 | rs75258258  | C | A | 0.313471   | -0.0774017 | 3.30E-06 | 22 |
| GCST90200329 | rs7778085   | A | G | 0.903629   | -0.125134  | 2.24E-06 | 22 |
| GCST90200329 | rs79970697  | C | A | 0.0257272  | -0.236432  | 1.40E-06 | 23 |
| GCST90200329 | rs62078793  | A | G | 0.116832   | -0.107867  | 9.72E-06 | 20 |
| GCST90200329 | rs200221    | G | A | 0.976083   | 0.225544   | 8.70E-06 | 20 |
| GCST90200329 | rs150477495 | T | C | 0.0117893  | 0.326915   | 6.36E-06 | 20 |
| GCST90200329 | rs17279471  | A | T | 0.34222    | -0.0808838 | 9.62E-07 | 24 |
| GCST90200329 | rs6025931   | C | A | 0.470445   | -0.0809153 | 3.19E-07 | 26 |
| GCST90200329 | rs1384963   | T | C | 0.276793   | -0.0778426 | 8.28E-06 | 20 |
| GCST90200329 | rs11903996  | A | C | 0.0576192  | -0.149876  | 7.91E-06 | 20 |
| GCST90200329 | rs1354034   | C | T | 0.608578   | 0.0772343  | 1.30E-06 | 23 |
| GCST90200329 | rs117629373 | A | G | 0.0230549  | -0.246209  | 2.03E-06 | 23 |
| GCST90200329 | rs72668507  | A | C | 0.0701235  | 0.14476    | 2.21E-06 | 22 |
| GCST90200329 | rs144460129 | A | G | 0.0126621  | -0.330626  | 1.93E-06 | 23 |
| GCST90200329 | rs113464900 | G | A | 0.172056   | 0.0985356  | 3.61E-06 | 21 |
| GCST90200329 | rs117097035 | T | C | 0.0271938  | -0.211614  | 8.59E-06 | 20 |
| GCST90200329 | rs10761980  | A | G | 0.130544   | -0.106031  | 4.59E-06 | 21 |
| GCST90200329 | rs112020944 | C | T | 0.0120829  | -0.319617  | 5.67E-06 | 21 |
| GCST90200329 | rs114235998 | A | T | 0.0536239  | 0.153395   | 8.97E-06 | 20 |
| GCST90200340 | rs12334629  | C | A | 0.0911187  | -0.147136  | 4.29E-08 | 30 |
| GCST90200340 | rs11191842  | T | C | 0.229812   | 0.0854798  | 3.36E-06 | 22 |
| GCST90200340 | rs145560841 | G | A | 0.0136836  | 0.340896   | 3.17E-07 | 26 |
| GCST90200340 | rs115629837 | C | T | 0.00960253 | -0.369024  | 3.39E-06 | 22 |
| GCST90200340 | rs12155488  | A | G | 0.394425   | -0.0719167 | 8.30E-06 | 20 |
| GCST90200340 | rs146351213 | G | C | 0.018947   | -0.290012  | 4.19E-07 | 26 |
| GCST90200340 | rs56316267  | T | C | 0.193057   | -0.0920085 | 4.74E-06 | 21 |
| GCST90200340 | rs12210213  | A | G | 0.052747   | -0.157879  | 4.79E-06 | 21 |
| GCST90200340 | rs2920504   | G | A | 0.591505   | -0.0723673 | 4.24E-06 | 21 |
| GCST90200340 | rs12129379  | T | G | 0.179295   | 0.102971   | 5.88E-07 | 25 |
| GCST90200340 | rs4527483   | C | T | 0.29194    | -0.078033  | 6.23E-06 | 20 |

|              |             |   |   |           |            |          |     |
|--------------|-------------|---|---|-----------|------------|----------|-----|
| GCST90200340 | rs140095724 | G | A | 0.0055832 | 0.46003    | 5.80E-06 | 21  |
| GCST90200340 | rs62268866  | T | A | 0.0879726 | -0.123226  | 6.75E-06 | 20  |
| GCST90200340 | rs2577374   | A | G | 0.584418  | 0.0713826  | 4.86E-06 | 21  |
| GCST90200340 | rs62001693  | A | C | 0.0500547 | 0.168072   | 1.96E-06 | 23  |
| GCST90200340 | rs10506881  | T | C | 0.850173  | 0.101727   | 4.34E-06 | 21  |
| GCST90200340 | rs997424    | T | G | 0.313365  | -0.0801767 | 3.41E-06 | 22  |
| GCST90200340 | rs77881374  | C | T | 0.0304005 | -0.220932  | 7.85E-07 | 24  |
| GCST90200340 | rs11163320  | T | C | 0.0494292 | 0.157572   | 8.42E-06 | 20  |
| GCST90200340 | rs10468017  | T | C | 0.288558  | 0.0962521  | 1.61E-08 | 32  |
| GCST90200340 | rs9511156   | A | G | 0.0862781 | 0.122098   | 8.82E-06 | 20  |
| GCST90200340 | rs77150123  | C | T | 0.0256065 | -0.218959  | 7.62E-06 | 20  |
| GCST90200340 | rs149615216 | T | C | 0.0109223 | 0.33185    | 6.70E-06 | 20  |
| GCST90200349 | rs11715464  | G | A | 0.381393  | -0.0722285 | 2.77E-06 | 22  |
| GCST90200349 | rs77207094  | C | T | 0.01855   | -0.254687  | 4.02E-06 | 21  |
| GCST90200349 | rs150012979 | T | C | 0.0156858 | 0.275285   | 4.39E-06 | 21  |
| GCST90200349 | rs150941261 | C | T | 0.0124985 | -0.296487  | 6.04E-06 | 20  |
| GCST90200349 | rs28618184  | G | A | 0.043898  | 0.162338   | 7.70E-06 | 20  |
| GCST90200349 | rs144230997 | T | A | 0.0116422 | -0.311166  | 8.40E-06 | 20  |
| GCST90200349 | rs34736275  | A | G | 0.327617  | 0.0785008  | 1.15E-06 | 24  |
| GCST90200349 | rs61959375  | G | A | 0.0503654 | 0.167153   | 7.65E-07 | 24  |
| GCST90200349 | rs174546    | T | C | 0.339212  | -0.205114  | 7.83E-04 | 174 |
| GCST90200349 | rs187828726 | G | T | 0.0233872 | -0.231208  | 2.69E-06 | 22  |
| GCST90200381 | rs73233494  | T | G | 0.0378253 | 0.177694   | 9.41E-06 | 20  |
| GCST90200381 | rs143724042 | A | G | 0.0087881 | -0.371484  | 7.98E-06 | 20  |
| GCST90200381 | rs77706195  | A | T | 0.0181818 | 0.293493   | 4.53E-07 | 25  |
| GCST90200381 | rs7917792   | T | C | 0.354443  | 0.0728706  | 6.70E-06 | 20  |
| GCST90200381 | rs4535286   | G | T | 0.323756  | -0.0860854 | 2.37E-07 | 27  |
| GCST90200381 | rs17067958  | A | G | 0.0426143 | 0.189443   | 8.51E-07 | 24  |
| GCST90200381 | rs79381555  | G | A | 0.0185455 | -0.252952  | 8.44E-06 | 20  |
| GCST90200381 | rs2523006   | C | T | 0.841441  | 0.0961695  | 6.84E-06 | 20  |
| GCST90200381 | rs2688992   | C | A | 0.501048  | 0.0734797  | 2.00E-06 | 23  |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200381 | rs61757683  | T | G | 0.0204607  | 0.378705   | 6.96E-12 | 47 |
| GCST90200381 | rs28991272  | A | G | 0.0381809  | 0.196513   | 1.01E-06 | 24 |
| GCST90200381 | rs72862695  | G | A | 0.125371   | 0.104787   | 8.24E-06 | 20 |
| GCST90200381 | rs78014775  | T | C | 0.225147   | 0.0864983  | 2.72E-06 | 22 |
| GCST90200381 | rs112995499 | T | C | 0.0379121  | 0.182322   | 8.82E-06 | 20 |
| GCST90200381 | rs77020418  | T | G | 0.066973   | 0.140947   | 6.41E-06 | 20 |
| GCST90200381 | rs4349372   | C | G | 0.19227    | 0.0951683  | 1.23E-06 | 24 |
| GCST90200381 | rs375983738 | G | A | 0.00238415 | 0.707843   | 8.95E-06 | 20 |
| GCST90200381 | rs148006308 | C | T | 0.0189472  | -0.254038  | 8.40E-06 | 20 |
| GCST90200381 | rs77568655  | A | T | 0.0130154  | -0.311639  | 4.31E-06 | 21 |
| GCST90200393 | rs9469582   | G | A | 0.0697519  | -0.211923  | 7.67E-13 | 51 |
| GCST90200393 | rs1781070   | A | G | 0.418      | -0.0824633 | 8.27E-08 | 29 |
| GCST90200393 | rs117107590 | T | C | 0.018496   | 0.261927   | 2.32E-06 | 22 |
| GCST90200393 | rs4817555   | A | G | 0.161879   | -0.0924864 | 7.41E-06 | 20 |
| GCST90200393 | rs117829721 | G | A | 0.0390127  | 0.177664   | 5.12E-06 | 21 |
| GCST90200393 | rs12903202  | G | A | 0.0902685  | 0.124885   | 2.05E-06 | 23 |
| GCST90200393 | rs76300649  | T | G | 0.0226582  | -0.237838  | 2.40E-06 | 22 |
| GCST90200393 | rs116883473 | G | A | 0.0115019  | 0.359122   | 3.65E-07 | 26 |
| GCST90200393 | rs11976736  | A | G | 0.226544   | -0.0806995 | 8.87E-06 | 20 |
| GCST90200393 | rs116976262 | C | T | 0.0511176  | -0.168704  | 8.68E-07 | 24 |
| GCST90200393 | rs850314    | T | C | 0.343896   | 0.0718395  | 6.65E-06 | 20 |
| GCST90200393 | rs76633208  | G | A | 0.0505967  | -0.153755  | 8.41E-06 | 20 |
| GCST90200393 | rs4974503   | C | T | 0.31594    | -0.0748751 | 3.39E-06 | 22 |
| GCST90200393 | rs12267678  | A | G | 0.17595    | -0.0939481 | 2.06E-06 | 23 |
| GCST90200393 | rs74030608  | T | G | 0.00851892 | -0.365595  | 7.59E-06 | 20 |
| GCST90200393 | rs9498162   | C | T | 0.181531   | -0.0892134 | 5.90E-06 | 21 |
| GCST90200393 | rs4539348   | T | C | 0.71492    | -0.0743585 | 8.74E-06 | 20 |
| GCST90200393 | rs112313662 | C | T | 0.17373    | 0.0887708  | 8.88E-06 | 20 |
| GCST90200393 | rs78361175  | T | C | 0.00516466 | -0.472667  | 7.04E-06 | 20 |
| GCST90200393 | rs78247962  | C | T | 0.178681   | 0.0874872  | 7.66E-06 | 20 |
| GCST90200393 | rs77625001  | A | G | 0.0290776  | -0.20851   | 2.92E-06 | 22 |

|              |             |   |   |           |            |          |     |
|--------------|-------------|---|---|-----------|------------|----------|-----|
| GCST90200393 | rs28588878  | T | C | 0.0203237 | 0.254033   | 2.44E-06 | 22  |
| GCST90200411 | rs11957497  | T | C | 0.0590909 | 0.147467   | 3.54E-06 | 22  |
| GCST90200411 | rs2953039   | C | T | 0.539216  | 0.0677936  | 7.21E-06 | 20  |
| GCST90200411 | rs4492997   | A | G | 0.890454  | 0.107488   | 7.89E-06 | 20  |
| GCST90200411 | rs118098270 | A | G | 0.0248847 | -0.231992  | 1.92E-06 | 23  |
| GCST90200411 | rs115084361 | A | G | 0.02      | 0.25365    | 2.25E-06 | 22  |
| GCST90200411 | rs4958949   | G | A | 0.250901  | -0.0777727 | 9.34E-06 | 20  |
| GCST90200411 | rs11135715  | G | A | 0.287465  | -0.0798018 | 3.31E-06 | 22  |
| GCST90200411 | rs117340747 | G | C | 0.0274132 | -0.20614   | 7.62E-06 | 20  |
| GCST90200411 | rs2540640   | C | G | 0.0931757 | 0.467272   | 9.75E-76 | 339 |
| GCST90200411 | rs77826363  | T | G | 0.0306771 | 0.205805   | 2.86E-06 | 22  |
| GCST90200411 | rs76531193  | A | T | 0.16041   | -0.0949715 | 3.82E-06 | 21  |
| GCST90200411 | rs12440185  | T | C | 0.0385735 | 0.208029   | 9.33E-08 | 29  |
| GCST90200411 | rs185864528 | C | T | 0.0321734 | 0.19642    | 4.74E-06 | 21  |
| GCST90200411 | rs11601073  | T | C | 0.481567  | -0.0730943 | 1.59E-06 | 23  |
| GCST90200411 | rs78891787  | A | G | 0.111529  | -0.108697  | 5.27E-06 | 21  |
| GCST90200411 | rs7306237   | C | A | 0.0152222 | 0.276823   | 6.94E-06 | 20  |
| GCST90200411 | rs4469435   | G | A | 0.216705  | -0.082517  | 7.48E-06 | 20  |
| GCST90200411 | rs7830312   | G | A | 0.972758  | -0.219047  | 2.93E-06 | 22  |
| GCST90200411 | rs72853108  | T | C | 0.0384895 | 0.174789   | 5.85E-06 | 21  |
| GCST90200411 | rs61858978  | A | G | 0.0114871 | 0.334182   | 3.14E-06 | 22  |
| GCST90200411 | rs139815576 | G | A | 0.011476  | -0.323267  | 4.10E-06 | 21  |
| GCST90200411 | rs17258815  | A | G | 0.435649  | 0.076315   | 7.86E-07 | 24  |
| GCST90200411 | rs7239591   | T | G | 0.0526124 | -0.150584  | 6.78E-06 | 20  |
| GCST90200411 | rs116965831 | G | A | 0.0208915 | 0.241449   | 4.44E-06 | 21  |
| GCST90200411 | rs75857744  | C | T | 0.0378401 | -0.177053  | 8.07E-06 | 20  |
| GCST90200411 | rs55754236  | C | T | 0.0338437 | 0.208793   | 5.77E-07 | 25  |
| GCST90200411 | rs77306138  | C | G | 0.0117511 | -0.323518  | 4.33E-06 | 21  |
| GCST90200411 | rs55638918  | C | T | 0.0430363 | 0.176695   | 2.14E-06 | 22  |
| GCST90200411 | rs143292073 | G | A | 0.059638  | -0.139694  | 9.73E-06 | 20  |
| GCST90200411 | rs72937102  | C | T | 0.0111314 | -0.317994  | 8.62E-06 | 20  |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200411 | rs13433658  | G | C | 0.178364   | -0.112766  | 1.36E-08 | 32 |
| GCST90200430 | rs73453892  | T | C | 0.161475   | 0.0938813  | 9.71E-06 | 20 |
| GCST90200430 | rs117775515 | T | A | 0.029375   | 0.207489   | 5.50E-06 | 21 |
| GCST90200430 | rs7478572   | A | G | 0.00467346 | 0.501309   | 9.39E-06 | 20 |
| GCST90200430 | rs4665972   | C | T | 0.591799   | -0.0763485 | 1.36E-06 | 23 |
| GCST90200430 | rs10212643  | C | G | 0.0911629  | 0.119578   | 9.87E-06 | 20 |
| GCST90200430 | rs144880202 | C | A | 0.0202867  | -0.252142  | 4.01E-06 | 21 |
| GCST90200430 | rs7089734   | A | G | 0.270023   | 0.0789937  | 6.09E-06 | 20 |
| GCST90200430 | rs13332352  | C | T | 0.0218288  | 0.2479     | 2.18E-06 | 22 |
| GCST90200430 | rs6797859   | G | A | 0.120405   | 0.108934   | 4.38E-06 | 21 |
| GCST90200430 | rs114927772 | T | A | 0.0199633  | 0.256271   | 4.16E-06 | 21 |
| GCST90200430 | rs10044998  | A | G | 0.0162238  | 0.28079    | 4.52E-06 | 21 |
| GCST90200430 | rs34668825  | G | A | 0.0465543  | -0.172339  | 2.18E-06 | 22 |
| GCST90200430 | rs58559223  | A | G | 0.0787465  | 0.141225   | 8.37E-07 | 24 |
| GCST90200430 | rs325001    | T | C | 0.554991   | 0.0705028  | 9.70E-06 | 20 |
| GCST90200430 | rs7796905   | C | T | 0.44771    | -0.0723907 | 3.43E-06 | 22 |
| GCST90200430 | rs10851243  | C | A | 0.150295   | -0.0964673 | 9.39E-06 | 20 |
| GCST90200430 | rs2392871   | A | G | 0.297786   | 0.0799564  | 2.53E-06 | 22 |
| GCST90200430 | rs79888339  | T | C | 0.0143365  | -0.298224  | 5.36E-06 | 21 |
| GCST90200430 | rs192431765 | C | G | 0.00781918 | 0.395723   | 6.95E-06 | 20 |
| GCST90200430 | rs7831951   | A | G | 0.323348   | -0.0731734 | 9.97E-06 | 20 |
| GCST90200430 | rs115199424 | T | C | 0.112503   | -0.122725  | 6.06E-07 | 25 |
| GCST90200439 | rs62487233  | G | T | 0.0758708  | 0.133577   | 5.99E-06 | 20 |
| GCST90200439 | rs148730708 | T | C | 0.013406   | -0.30844   | 5.04E-06 | 21 |
| GCST90200439 | rs138776082 | G | A | 0.0191672  | 0.258189   | 4.23E-06 | 21 |
| GCST90200439 | rs77736323  | G | A | 0.0363959  | 0.189418   | 4.27E-06 | 21 |
| GCST90200439 | rs56181922  | G | T | 0.0108075  | 0.352583   | 1.61E-06 | 23 |
| GCST90200439 | rs66995637  | T | C | 0.284196   | -0.0774067 | 7.17E-06 | 20 |
| GCST90200439 | rs62235542  | T | C | 0.316752   | -0.0798462 | 2.06E-06 | 23 |
| GCST90200439 | rs56307755  | T | C | 0.155102   | 0.102096   | 2.71E-06 | 22 |
| GCST90200439 | rs111505931 | A | G | 0.0393196  | -0.180563  | 4.70E-06 | 21 |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200439 | rs117189628 | G | A | 0.0280317  | -0.222572  | 2.10E-06 | 23  |
| GCST90200439 | rs34748049  | A | T | 0.0584382  | -0.15346   | 5.81E-06 | 21  |
| GCST90200439 | rs1539958   | G | A | 0.404472   | 0.0770378  | 8.10E-07 | 24  |
| GCST90200439 | rs4121515   | T | C | 0.00310748 | -0.651098  | 2.63E-06 | 22  |
| GCST90200439 | rs12054209  | T | G | 0.807633   | 0.0937023  | 2.40E-06 | 22  |
| GCST90200450 | rs7699323   | G | A | 0.0560069  | -0.164619  | 2.51E-06 | 22  |
| GCST90200450 | rs77389939  | C | T | 0.071911   | 0.146074   | 2.32E-06 | 22  |
| GCST90200450 | rs75716342  | A | G | 0.00798935 | -0.394309  | 9.69E-06 | 20  |
| GCST90200450 | rs7653229   | T | A | 0.0327641  | 0.238944   | 1.03E-07 | 28  |
| GCST90200450 | rs75854299  | C | A | 0.0152257  | -0.2925    | 6.35E-06 | 20  |
| GCST90200450 | rs1801761   | T | C | 0.0142252  | -0.303402  | 7.67E-06 | 20  |
| GCST90200450 | rs140409422 | C | T | 0.0202837  | 0.256599   | 6.95E-06 | 20  |
| GCST90200450 | rs77277881  | A | G | 0.0135837  | 0.351118   | 4.42E-07 | 26  |
| GCST90200450 | rs150000692 | A | G | 0.00861378 | 0.436181   | 6.07E-07 | 25  |
| GCST90200450 | rs12901570  | T | C | 0.0662471  | 0.154945   | 2.31E-06 | 22  |
| GCST90200450 | rs187444803 | A | G | 0.0137352  | 0.316983   | 5.21E-06 | 21  |
| GCST90200450 | rs77246088  | G | A | 0.0149927  | 0.320946   | 1.24E-06 | 24  |
| GCST90200450 | rs12087626  | A | C | 0.30433    | -0.190398  | 1.78E-28 | 123 |
| GCST90200450 | rs35224423  | C | G | 0.00935775 | 0.405877   | 1.03E-06 | 24  |
| GCST90200450 | rs13254568  | T | C | 0.175568   | -0.0995665 | 4.26E-06 | 21  |
| GCST90200450 | rs73031046  | A | C | 0.0448463  | 0.17103    | 9.78E-06 | 20  |
| GCST90200450 | rs147982581 | G | T | 0.00775245 | 0.416728   | 4.62E-06 | 21  |
| GCST90200450 | rs71459199  | A | G | 0.141713   | 0.113531   | 1.35E-06 | 23  |
| GCST90200450 | rs71567664  | T | C | 0.0125665  | 0.355575   | 7.21E-07 | 25  |
| GCST90200450 | rs59354201  | G | C | 0.00205108 | 0.795325   | 7.21E-06 | 20  |
| GCST90200450 | rs34615322  | A | G | 0.213364   | 0.0973242  | 1.09E-06 | 24  |
| GCST90200450 | rs68146491  | G | A | 0.0947699  | -0.129553  | 2.24E-06 | 22  |
| GCST90200450 | rs9938591   | C | T | 0.975717   | -0.236992  | 6.26E-06 | 20  |
| GCST90200450 | rs61908034  | C | T | 0.0351516  | 0.199425   | 4.24E-06 | 21  |
| GCST90200460 | rs149382022 | C | T | 0.0203188  | -0.239237  | 3.54E-06 | 21  |
| GCST90200460 | rs7217699   | C | A | 0.0765262  | -0.123863  | 7.23E-06 | 20  |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200460 | rs11045885  | G | A | 0.168244   | 0.169911   | 1.73E-18 | 77 |
| GCST90200460 | rs116468480 | A | C | 0.0159719  | 0.265132   | 7.62E-06 | 20 |
| GCST90200460 | rs73374500  | T | C | 0.144759   | -0.0947398 | 5.71E-06 | 21 |
| GCST90200460 | rs1385029   | T | A | 0.175863   | 0.0870678  | 5.84E-06 | 21 |
| GCST90200460 | rs10130354  | C | T | 0.902963   | -0.125247  | 4.85E-07 | 25 |
| GCST90200460 | rs10770795  | G | A | 0.135054   | -0.100526  | 2.35E-06 | 22 |
| GCST90200460 | rs11140382  | A | G | 0.165593   | -0.0942182 | 1.37E-06 | 23 |
| GCST90200460 | rs192963379 | A | G | 0.0102103  | -0.324254  | 7.64E-06 | 20 |
| GCST90200460 | rs117448127 | T | C | 0.00637297 | -0.422508  | 4.50E-06 | 21 |
| GCST90200460 | rs6948740   | G | A | 0.0712021  | 0.135254   | 1.81E-06 | 23 |
| GCST90200460 | rs78540293  | G | T | 0.0426257  | 0.159705   | 8.97E-06 | 20 |
| GCST90200460 | rs1420433   | A | C | 0.547754   | -0.065426  | 9.34E-06 | 20 |
| GCST90200460 | rs61859378  | G | A | 0.165362   | -0.0934408 | 1.85E-06 | 23 |
| GCST90200460 | rs73051779  | C | T | 0.153262   | 0.0926389  | 7.51E-06 | 20 |
| GCST90200460 | rs7048589   | G | T | 0.598008   | -0.0729109 | 1.26E-06 | 23 |
| GCST90200460 | rs11650952  | A | C | 0.143823   | -0.0935355 | 7.81E-06 | 20 |
| GCST90200460 | rs114194674 | C | T | 0.0302865  | 0.193995   | 6.03E-06 | 20 |
| GCST90200460 | rs10872544  | A | G | 0.338215   | 0.0729953  | 3.01E-06 | 22 |
| GCST90200460 | rs9815847   | A | G | 0.344966   | -0.0681218 | 9.22E-06 | 20 |
| GCST90200460 | rs17463683  | C | A | 0.114908   | 0.12208    | 1.37E-07 | 28 |
| GCST90200460 | rs8037291   | G | A | 0.184738   | -0.0877132 | 3.14E-06 | 22 |
| GCST90200460 | rs75181344  | A | G | 0.0284706  | 0.21217    | 1.00E-06 | 24 |
| GCST90200460 | rs55751241  | C | T | 0.228022   | -0.0787521 | 5.98E-06 | 20 |
| GCST90200460 | rs35101017  | C | T | 0.670118   | 0.0708572  | 7.31E-06 | 20 |
| GCST90200468 | rs17368073  | A | G | 0.0602896  | -0.162329  | 1.92E-06 | 23 |
| GCST90200468 | rs5760617   | A | G | 0.478768   | -0.082194  | 6.53E-07 | 25 |
| GCST90200468 | rs4380603   | A | G | 0.179925   | 0.106122   | 7.29E-07 | 25 |
| GCST90200468 | rs112691118 | A | G | 0.0518178  | 0.17316    | 2.46E-06 | 22 |
| GCST90200468 | rs78529703  | T | A | 0.0734715  | -0.147037  | 3.39E-06 | 22 |
| GCST90200468 | rs146287641 | C | T | 0.0207692  | -0.261071  | 5.65E-06 | 21 |
| GCST90200468 | rs1018934   | G | A | 0.459047   | 0.0778194  | 2.20E-06 | 22 |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200468 | rs371094489 | C | T | 0.0766118  | -0.142764  | 3.36E-06 | 22 |
| GCST90200468 | rs146687346 | T | C | 0.0104588  | -0.365837  | 5.71E-06 | 21 |
| GCST90200468 | rs77380122  | A | G | 0.0352054  | -0.20332   | 4.87E-06 | 21 |
| GCST90200468 | rs55750090  | C | T | 0.0115433  | 0.38972    | 3.46E-07 | 26 |
| GCST90200468 | rs72990403  | C | A | 0.0421956  | 0.181705   | 6.07E-06 | 20 |
| GCST90200468 | rs72772464  | A | G | 0.0133454  | 0.323813   | 5.56E-06 | 21 |
| GCST90200468 | rs111336355 | T | C | 0.0378081  | -0.205548  | 1.77E-06 | 23 |
| GCST90200468 | rs4398700   | T | C | 0.0357741  | -0.202492  | 4.27E-06 | 21 |
| GCST90200468 | rs10920555  | A | G | 0.332547   | -0.0777634 | 9.98E-06 | 20 |
| GCST90200468 | rs78021441  | T | G | 0.223965   | -0.0891481 | 7.45E-06 | 20 |
| GCST90200468 | rs45547436  | T | C | 0.0163535  | 0.301994   | 2.35E-06 | 22 |
| GCST90200483 | rs149397079 | C | A | 0.0283861  | -0.296514  | 5.88E-11 | 43 |
| GCST90200483 | rs260545    | G | C | 0.913625   | 0.130439   | 4.48E-06 | 21 |
| GCST90200483 | rs171260    | C | A | 0.180081   | -0.0894783 | 9.99E-06 | 20 |
| GCST90200483 | rs12121840  | T | C | 0.0588637  | 0.143854   | 8.55E-06 | 20 |
| GCST90200483 | rs144764979 | T | C | 0.0071885  | -0.399368  | 8.62E-06 | 20 |
| GCST90200483 | rs113042740 | T | C | 0.114782   | -0.125496  | 1.74E-07 | 27 |
| GCST90200483 | rs76614684  | T | C | 0.00404065 | -0.560185  | 2.56E-06 | 22 |
| GCST90200483 | rs35680393  | A | G | 0.18729    | -0.0876392 | 6.84E-06 | 20 |
| GCST90200483 | rs62127683  | T | C | 0.213971   | 0.0923579  | 6.93E-07 | 25 |
| GCST90200483 | rs12185242  | C | A | 0.470241   | -0.0717842 | 2.24E-06 | 22 |
| GCST90200483 | rs3806357   | A | G | 0.0812306  | 0.123868   | 9.08E-06 | 20 |
| GCST90200483 | rs11943282  | C | T | 0.397758   | -0.070638  | 4.67E-06 | 21 |
| GCST90200483 | rs72844718  | A | C | 0.0178593  | -0.256955  | 5.30E-06 | 21 |
| GCST90200483 | rs9363267   | T | C | 0.0864455  | -0.120542  | 6.73E-06 | 20 |
| GCST90200483 | rs117851413 | A | C | 0.0549975  | 0.149305   | 5.74E-06 | 21 |
| GCST90200483 | rs111403544 | A | T | 0.028727   | 0.214765   | 2.36E-06 | 22 |
| GCST90200483 | rs10216403  | G | A | 0.866887   | 0.10378    | 3.31E-06 | 22 |
| GCST90200483 | rs7868128   | G | A | 0.0409501  | -0.188024  | 9.38E-07 | 24 |
| GCST90200483 | rs56113850  | C | T | 0.577382   | 0.129952   | 6.57E-18 | 74 |
| GCST90200483 | rs1112669   | C | G | 0.172752   | 0.0974812  | 1.15E-06 | 24 |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200483 | rs4612814   | G | A | 0.14446    | -0.0978348 | 6.82E-06 | 20  |
| GCST90200483 | rs9459715   | G | T | 0.101261   | -0.11672   | 5.04E-06 | 21  |
| GCST90200483 | rs4939880   | T | C | 0.51902    | -0.075661  | 1.32E-06 | 23  |
| GCST90200488 | rs34901612  | G | A | 0.359707   | 0.07153    | 9.42E-06 | 20  |
| GCST90200488 | rs368823    | G | A | 0.14927    | 0.119958   | 9.63E-09 | 33  |
| GCST90200488 | rs17656454  | G | A | 0.0979804  | 0.116011   | 4.67E-06 | 21  |
| GCST90200488 | rs13010122  | T | C | 0.374686   | 0.0750877  | 1.94E-06 | 23  |
| GCST90200488 | rs16977754  | A | G | 0.013802   | -0.299497  | 3.07E-06 | 22  |
| GCST90200488 | rs17186704  | C | T | 0.174452   | 0.0944697  | 2.17E-06 | 22  |
| GCST90200488 | rs149937410 | C | T | 0.0252209  | -0.223926  | 2.88E-06 | 22  |
| GCST90200488 | rs2063840   | A | G | 0.0592618  | 0.146683   | 3.58E-06 | 21  |
| GCST90200488 | rs117427650 | A | C | 0.0383259  | 0.182985   | 3.32E-06 | 22  |
| GCST90200488 | rs34427332  | A | C | 0.21248    | -0.0923331 | 9.38E-07 | 24  |
| GCST90200488 | rs11809239  | G | A | 0.625137   | -0.0764484 | 9.49E-07 | 24  |
| GCST90200488 | rs35937374  | T | C | 0.573348   | -0.0684925 | 7.20E-06 | 20  |
| GCST90200488 | rs118037557 | A | C | 0.0155479  | -0.270396  | 8.13E-06 | 20  |
| GCST90200488 | rs11582696  | T | C | 0.0428182  | -0.177177  | 2.16E-06 | 22  |
| GCST90200488 | rs37369     | T | C | 0.074162   | -0.580268  | 3.00E-92 | 415 |
| GCST90200488 | rs73129971  | C | T | 0.0139908  | -0.285276  | 8.45E-06 | 20  |
| GCST90200488 | rs62229260  | A | G | 0.591226   | -0.10504   | 4.18E-12 | 48  |
| GCST90200488 | rs75203798  | C | A | 0.0142682  | 0.289462   | 4.82E-06 | 21  |
| GCST90200488 | rs76996336  | C | A | 0.021414   | 0.245557   | 2.45E-06 | 22  |
| GCST90200488 | rs34400381  | A | G | 0.0316739  | -0.306588  | 6.12E-13 | 52  |
| GCST90200488 | rs11627462  | T | C | 0.0548772  | -0.150145  | 4.51E-06 | 21  |
| GCST90200488 | rs115525526 | C | T | 0.0105672  | -0.354821  | 1.16E-06 | 24  |
| GCST90200488 | rs683369    | C | G | 0.78184    | -0.0849327 | 3.60E-06 | 21  |
| GCST90200488 | rs114658756 | C | A | 0.01916    | -0.250889  | 4.01E-06 | 21  |
| GCST90200488 | rs305941    | T | C | 0.138239   | -0.103615  | 5.10E-06 | 21  |
| GCST90200488 | rs11545229  | A | G | 0.00820896 | -0.384179  | 4.20E-06 | 21  |
| GCST90200488 | rs112564808 | C | T | 0.00964805 | 0.376291   | 1.08E-06 | 24  |
| GCST90200488 | rs10456272  | G | A | 0.25098    | 0.0798388  | 6.06E-06 | 20  |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200488 | rs112875651 | A | G | 0.393059   | 0.0805334  | 1.84E-07 | 27 |
| GCST90200488 | rs111538191 | T | A | 0.026821   | 0.211072   | 4.89E-06 | 21 |
| GCST90200488 | rs62542879  | T | G | 0.048734   | 0.158751   | 5.66E-06 | 21 |
| GCST90200502 | rs12325244  | C | T | 0.0181574  | 0.261772   | 9.80E-06 | 20 |
| GCST90200502 | rs29575     | A | T | 0.389783   | -0.0745289 | 8.85E-06 | 20 |
| GCST90200502 | rs12438830  | C | G | 0.0870959  | 0.123199   | 8.99E-06 | 20 |
| GCST90200502 | rs4837433   | T | A | 0.89148    | -0.12769   | 5.17E-07 | 25 |
| GCST90200502 | rs115094506 | T | C | 0.0187857  | 0.27096    | 2.91E-06 | 22 |
| GCST90200502 | rs2040801   | C | G | 0.00691554 | 0.432099   | 5.10E-06 | 21 |
| GCST90200502 | rs111875922 | T | C | 0.0171789  | 0.460651   | 1.11E-14 | 60 |
| GCST90200502 | rs12923643  | A | G | 0.0358964  | 0.310182   | 1.37E-13 | 55 |
| GCST90200502 | rs144245963 | T | C | 0.013977   | 0.52022    | 9.33E-15 | 60 |
| GCST90200502 | rs116938011 | T | C | 0.00909826 | -0.705907  | 1.34E-17 | 73 |
| GCST90200502 | rs10770141  | G | A | 0.619311   | -0.077317  | 1.77E-06 | 23 |
| GCST90200502 | rs4649043   | A | T | 0.0806887  | 0.138429   | 1.69E-06 | 23 |
| GCST90200502 | rs78157656  | A | G | 0.015241   | -0.282233  | 6.72E-06 | 20 |
| GCST90200502 | rs113927841 | C | T | 0.0199315  | 0.2577     | 5.14E-06 | 21 |
| GCST90200502 | rs2540018   | G | A | 0.766973   | -0.0838486 | 5.61E-06 | 21 |
| GCST90200502 | rs36123375  | T | G | 0.056577   | 0.160472   | 2.52E-06 | 22 |
| GCST90200502 | rs76062400  | A | G | 0.0263936  | 0.22254    | 6.17E-06 | 20 |
| GCST90200502 | rs17357891  | G | C | 0.160145   | -0.0965994 | 6.88E-06 | 20 |
| GCST90200502 | rs117985404 | A | G | 0.0211353  | 0.342342   | 3.04E-10 | 40 |
| GCST90200502 | rs148060734 | G | A | 0.00772019 | 0.427156   | 1.93E-06 | 23 |
| GCST90200502 | rs76470122  | T | C | 0.0976741  | -0.11976   | 6.82E-06 | 20 |
| GCST90200502 | rs76274897  | T | C | 0.167232   | 0.0983449  | 2.61E-06 | 22 |
| GCST90200502 | rs7199777   | C | T | 0.614099   | 0.0817715  | 4.37E-07 | 26 |
| GCST90200502 | rs10762982  | T | C | 0.13223    | -0.102571  | 9.60E-06 | 20 |
| GCST90200502 | rs79252520  | T | C | 0.0319806  | 0.196791   | 9.13E-06 | 20 |
| GCST90200502 | rs72720906  | A | G | 0.0367796  | -0.184542  | 8.16E-06 | 20 |
| GCST90200502 | rs17712069  | G | T | 0.0913846  | 0.132088   | 2.82E-06 | 22 |
| GCST90200502 | rs4963272   | G | A | 0.1718     | 0.0949365  | 5.62E-06 | 21 |

|              |             |   |   |             |            |          |    |
|--------------|-------------|---|---|-------------|------------|----------|----|
| GCST90200502 | rs80339217  | C | G | 0.0322841   | -0.245214  | 2.14E-08 | 31 |
| GCST90200502 | rs9525958   | T | C | 0.0524433   | 0.16556    | 3.41E-06 | 22 |
| GCST90200534 | rs11056479  | A | G | 0.0814926   | 0.132969   | 2.13E-06 | 22 |
| GCST90200534 | rs12607348  | C | G | 0.111214    | 0.125241   | 2.62E-07 | 27 |
| GCST90200534 | rs11211403  | T | G | 0.875447    | 0.126434   | 5.34E-08 | 30 |
| GCST90200534 | rs35001035  | G | A | 0.0613854   | -0.144113  | 5.85E-06 | 21 |
| GCST90200534 | rs117020137 | A | G | 0.0225504   | -0.232851  | 7.14E-06 | 20 |
| GCST90200534 | rs7639004   | A | G | 0.00648878  | -0.420746  | 9.00E-06 | 20 |
| GCST90200534 | rs11084080  | C | T | 0.238807    | -0.0924378 | 1.97E-07 | 27 |
| GCST90200534 | rs13146069  | T | A | 0.187294    | -0.0898375 | 4.44E-06 | 21 |
| GCST90200534 | rs2468392   | C | A | 0.165893    | -0.0967615 | 6.68E-06 | 20 |
| GCST90200534 | rs77261061  | A | G | 0.0454766   | -0.160893  | 9.06E-06 | 20 |
| GCST90200534 | rs11718728  | A | G | 0.236556    | 0.0876113  | 1.47E-06 | 23 |
| GCST90200534 | rs12121162  | T | G | 0.108857    | -0.11233   | 4.29E-06 | 21 |
| GCST90200534 | rs12088936  | G | A | 0.200098    | 0.0850146  | 8.40E-06 | 20 |
| GCST90200534 | rs55982070  | T | C | 0.0343363   | -0.202634  | 1.29E-06 | 23 |
| GCST90200534 | rs58667109  | C | G | 0.0383514   | -0.178685  | 6.19E-06 | 20 |
| GCST90200534 | rs117609047 | T | C | 0.0106731   | 0.3473     | 2.86E-06 | 22 |
| GCST90200534 | rs41307553  | G | T | 0.0414593   | 0.173094   | 5.10E-06 | 21 |
| GCST90200541 | rs74744227  | G | C | 0.00909204  | 0.426778   | 4.27E-07 | 26 |
| GCST90200541 | rs73042338  | A | G | 0.0194169   | 0.262945   | 5.55E-06 | 21 |
| GCST90200541 | rs138137625 | A | G | 0.00693317  | 0.523079   | 6.06E-08 | 29 |
| GCST90200541 | rs75410853  | A | G | 0.0164262   | 0.295428   | 4.43E-06 | 21 |
| GCST90200541 | rs73995812  | C | T | 0.000186312 | 2.75874    | 2.28E-06 | 22 |
| GCST90200541 | rs1366150   | C | T | 0.0700729   | 0.141136   | 6.26E-06 | 20 |
| GCST90200541 | rs140467425 | T | C | 0.000372024 | 2.32985    | 1.63E-08 | 32 |
| GCST90200541 | rs138274140 | G | A | 0.0109924   | 0.37431    | 9.52E-07 | 24 |
| GCST90200541 | rs76053345  | C | T | 0.00875233  | 0.388719   | 5.14E-06 | 21 |
| GCST90200541 | rs117714889 | A | G | 0.00881988  | 0.43614    | 3.44E-07 | 26 |
| GCST90200541 | rs77759493  | A | C | 0.00900509  | 0.398966   | 2.47E-06 | 22 |
| GCST90200541 | rs17716956  | G | A | 0.0733291   | 0.137285   | 9.03E-06 | 20 |

|              |             |   |   |             |            |          |    |
|--------------|-------------|---|---|-------------|------------|----------|----|
| GCST90200541 | rs74236574  | C | T | 0.000621659 | 1.47521    | 3.98E-06 | 21 |
| GCST90200541 | rs79927247  | C | G | 0.00599775  | 0.465766   | 7.21E-06 | 20 |
| GCST90200541 | rs72877081  | G | A | 0.007554    | 0.441458   | 1.86E-06 | 23 |
| GCST90200541 | rs147195407 | A | G | 0.00803838  | 0.406052   | 6.02E-06 | 20 |
| GCST90200541 | rs181176542 | C | T | 0.00738122  | 0.416926   | 7.97E-06 | 20 |
| GCST90200541 | rs7189018   | C | T | 0.0567571   | 0.162948   | 2.57E-06 | 22 |
| GCST90200541 | rs138489420 | C | A | 0.00941147  | 0.38494    | 3.83E-06 | 21 |
| GCST90200541 | rs139494609 | T | C | 0.0118428   | 0.339028   | 3.67E-06 | 21 |
| GCST90200541 | rs143408808 | T | C | 0.000372255 | 2.07987    | 4.66E-07 | 25 |
| GCST90200541 | rs79016091  | A | G | 0.0010542   | 1.17006    | 1.86E-06 | 23 |
| GCST90200541 | rs75712670  | A | G | 0.000248047 | 2.47359    | 9.88E-07 | 24 |
| GCST90200541 | rs140063846 | T | C | 0.00497698  | 0.523878   | 3.00E-06 | 22 |
| GCST90200541 | rs148867016 | A | G | 0.0127646   | 0.341477   | 1.79E-06 | 23 |
| GCST90200541 | rs138559519 | A | G | 0.0105467   | 0.36272    | 3.92E-06 | 21 |
| GCST90200541 | rs115233953 | A | C | 0.00772778  | 0.425143   | 2.79E-06 | 22 |
| GCST90200541 | rs141707776 | T | A | 0.0234619   | 0.235674   | 6.83E-06 | 20 |
| GCST90200541 | rs59057294  | T | G | 0.000930983 | 1.36503    | 1.72E-07 | 27 |
| GCST90200541 | rs73571613  | T | C | 0.00303857  | 0.657081   | 5.72E-06 | 21 |
| GCST90200541 | rs6717389   | G | T | 0.000806552 | 1.37679    | 9.20E-07 | 24 |
| GCST90200541 | rs140047638 | C | T | 0.0134304   | 0.454922   | 6.37E-11 | 43 |
| GCST90200541 | rs9902076   | G | T | 0.443622    | -0.0805391 | 1.34E-06 | 23 |
| GCST90200541 | rs114937492 | T | A | 0.00523104  | 0.52063    | 2.65E-06 | 22 |
| GCST90200541 | rs78169719  | C | A | 0.014206    | 0.333872   | 7.42E-07 | 25 |
| GCST90200541 | rs10282311  | T | C | 0.0592032   | 0.162242   | 1.79E-06 | 23 |
| GCST90200541 | rs113126428 | A | G | 0.0078987   | 0.433042   | 1.51E-06 | 23 |
| GCST90200541 | rs79506475  | G | A | 0.169198    | 0.0970782  | 8.17E-06 | 20 |
| GCST90200541 | rs60962879  | T | C | 0.126649    | 0.125736   | 1.74E-07 | 27 |
| GCST90200541 | rs138794973 | A | G | 0.000127194 | 3.96969    | 2.75E-08 | 31 |
| GCST90200541 | rs6067977   | C | T | 0.815542    | -0.0931729 | 6.09E-06 | 20 |
| GCST90200541 | rs271237    | C | G | 0.0116872   | 0.343826   | 3.58E-06 | 21 |
| GCST90200541 | rs141784209 | C | T | 0.0215108   | 0.250149   | 5.51E-06 | 21 |

|              |             |   |   |             |           |          |    |
|--------------|-------------|---|---|-------------|-----------|----------|----|
| GCST90200541 | rs62246460  | C | T | 0.0307953   | 0.20931   | 6.43E-06 | 20 |
| GCST90200541 | rs117685435 | C | T | 0.00547332  | 0.529217  | 1.03E-06 | 24 |
| GCST90200541 | rs148298484 | G | A | 0.0284283   | 0.244247  | 3.95E-07 | 26 |
| GCST90200541 | rs189394578 | A | G | 0.00950832  | 0.416383  | 4.08E-07 | 26 |
| GCST90200541 | rs148309160 | T | A | 0.0222834   | 0.242801  | 6.18E-06 | 20 |
| GCST90200541 | rs2332595   | C | A | 0.994576    | -0.503716 | 3.78E-06 | 21 |
| GCST90200541 | rs115473383 | A | G | 0.0321469   | 0.225088  | 6.67E-07 | 25 |
| GCST90200541 | rs839536    | T | C | 0.178576    | 0.0956472 | 3.99E-06 | 21 |
| GCST90200541 | rs4567963   | A | G | 0.0288304   | 0.24077   | 4.64E-07 | 25 |
| GCST90200541 | rs75584525  | G | A | 0.0188844   | 0.269047  | 4.56E-06 | 21 |
| GCST90200541 | rs200732843 | T | G | 0.000186174 | 2.74357   | 2.59E-06 | 22 |
| GCST90200541 | rs76952379  | G | A | 0.0414009   | 0.178964  | 7.36E-06 | 20 |
| GCST90200541 | rs111886188 | A | C | 0.00973082  | 0.380543  | 3.21E-06 | 22 |
| GCST90200541 | rs113034612 | T | C | 0.0162602   | 0.293771  | 3.38E-06 | 22 |
| GCST90200541 | rs116999390 | T | G | 0.0186035   | 0.26239   | 9.57E-06 | 20 |
| GCST90200541 | rs7907607   | G | A | 0.00266683  | 0.706973  | 4.78E-06 | 21 |
| GCST90200541 | rs115511401 | A | T | 0.0160565   | 0.287524  | 6.66E-06 | 20 |
| GCST90200541 | rs116182342 | C | T | 0.0293239   | 0.212616  | 7.87E-06 | 20 |
| GCST90200541 | rs146822474 | G | A | 0.00894188  | 0.427186  | 4.97E-07 | 25 |
| GCST90200541 | rs193087537 | G | A | 0.0235375   | 0.25788   | 1.23E-06 | 24 |
| GCST90200541 | rs80319011  | A | G | 0.00093029  | 1.48868   | 1.18E-08 | 33 |
| GCST90200541 | rs191304123 | T | A | 0.0216049   | 0.245424  | 7.54E-06 | 20 |
| GCST90200541 | rs554342893 | A | C | 0.000124131 | 3.47832   | 1.13E-06 | 24 |
| GCST90200541 | rs17022545  | G | A | 0.160794    | 0.0974742 | 8.23E-06 | 20 |
| GCST90200541 | rs76309627  | C | A | 0.000124085 | 4.75424   | 2.73E-11 | 44 |
| GCST90200541 | rs76535887  | T | C | 0.0172866   | 0.270665  | 9.54E-06 | 20 |
| GCST90200541 | rs79343456  | T | C | 0.000248201 | 2.23707   | 9.65E-06 | 20 |
| GCST90200541 | rs151106682 | A | G | 0.00685017  | 0.439994  | 5.79E-06 | 21 |
| GCST90200541 | rs77404354  | T | C | 0.0229415   | 0.262105  | 8.31E-07 | 24 |
| GCST90200541 | rs145179231 | G | A | 0.00809565  | 0.442958  | 5.86E-07 | 25 |
| GCST90200541 | rs150908587 | C | A | 0.000434297 | 1.85065   | 1.28E-06 | 23 |

|              |             |   |   |             |            |          |    |
|--------------|-------------|---|---|-------------|------------|----------|----|
| GCST90200541 | rs2273359   | G | C | 0.0430497   | 0.184257   | 2.89E-06 | 22 |
| GCST90200541 | rs112496134 | T | G | 0.000434405 | 2.24702    | 4.01E-09 | 35 |
| GCST90200541 | rs189164407 | G | A | 0.00564867  | 0.484212   | 5.53E-06 | 21 |
| GCST90200541 | rs78827180  | C | G | 0.00536226  | 0.500344   | 3.85E-06 | 21 |
| GCST90200541 | rs113660590 | A | G | 0.0319439   | 0.202064   | 7.81E-06 | 20 |
| GCST90200541 | rs11594835  | T | C | 0.00971357  | 0.409243   | 4.62E-07 | 25 |
| GCST90200541 | rs144039205 | T | C | 0.0127182   | 0.367893   | 2.48E-07 | 27 |
| GCST90200541 | rs112497462 | G | A | 0.0238006   | 0.265676   | 3.98E-07 | 26 |
| GCST90200541 | rs144250519 | T | C | 0.0122798   | 0.332929   | 2.99E-06 | 22 |
| GCST90200541 | rs115503006 | C | A | 0.0178638   | 0.274953   | 5.38E-06 | 21 |
| GCST90200541 | rs78649716  | C | A | 0.013498    | 0.333222   | 2.31E-06 | 22 |
| GCST90200541 | rs180689878 | T | C | 0.00031002  | 2.62138    | 6.56E-09 | 34 |
| GCST90200541 | rs10101219  | G | C | 0.00580742  | 0.475512   | 6.48E-06 | 20 |
| GCST90200541 | rs113337327 | A | G | 0.0125279   | 0.319083   | 8.50E-06 | 20 |
| GCST90200579 | rs3764899   | A | G | 0.322467    | -0.0908204 | 4.96E-07 | 25 |
| GCST90200579 | rs212100    | C | T | 0.837574    | -0.142287  | 3.87E-10 | 39 |
| GCST90200579 | rs117808108 | C | T | 0.0897626   | 0.140432   | 2.24E-06 | 22 |
| GCST90200579 | rs147915662 | G | C | 0.0212813   | -0.256408  | 9.87E-06 | 20 |
| GCST90200579 | rs145415193 | T | G | 0.0227948   | 0.249776   | 9.54E-06 | 20 |
| GCST90200579 | rs7235345   | T | C | 0.337983    | 0.0796379  | 7.06E-06 | 20 |
| GCST90200579 | rs11787077  | C | T | 0.598458    | 0.0783716  | 5.44E-06 | 21 |
| GCST90200579 | rs34905955  | G | T | 0.054751    | -0.166398  | 8.50E-06 | 20 |
| GCST90200579 | rs2472297   | T | C | 0.251064    | 0.0934446  | 1.07E-06 | 24 |
| GCST90200579 | rs203625    | G | A | 0.860541    | 0.110826   | 5.08E-06 | 21 |
| GCST90200579 | rs79503484  | T | G | 0.0348941   | -0.210177  | 3.90E-06 | 21 |
| GCST90200579 | rs59354128  | T | A | 0.148974    | 0.107153   | 7.17E-06 | 20 |
| GCST90200579 | rs76188105  | A | G | 0.0696499   | -0.156278  | 2.59E-06 | 22 |
| GCST90200579 | rs12120553  | T | G | 0.0703737   | -0.182086  | 2.84E-08 | 31 |
| GCST90200579 | rs191319487 | T | C | 0.00795657  | -0.424463  | 7.05E-06 | 20 |
| GCST90200579 | rs71526257  | A | G | 0.0288519   | 0.226039   | 5.15E-06 | 21 |
| GCST90200579 | rs117092809 | T | A | 0.000806452 | -1.34174   | 5.54E-06 | 21 |

|              |             |   |   |            |           |          |    |
|--------------|-------------|---|---|------------|-----------|----------|----|
| GCST90200579 | rs10988252  | T | C | 0.182104   | -0.116202 | 1.28E-07 | 28 |
| GCST90200579 | rs10236264  | A | C | 0.134765   | 0.117014  | 1.91E-06 | 23 |
| GCST90200605 | rs148407308 | T | C | 0.0462963  | 0.210443  | 8.29E-06 | 20 |
| GCST90200605 | rs9689553   | C | T | 0.206661   | 0.110884  | 9.46E-06 | 20 |
| GCST90200605 | rs34781048  | A | G | 0.428541   | 0.103417  | 6.31E-07 | 25 |
| GCST90200605 | rs2348840   | A | G | 0.252796   | 0.106836  | 4.55E-06 | 21 |
| GCST90200605 | rs180983650 | A | G | 0.00434153 | 0.7012    | 2.92E-06 | 22 |
| GCST90200605 | rs569884    | G | A | 0.944387   | 0.203594  | 2.38E-06 | 22 |
| GCST90200605 | rs139172050 | A | G | 0.0242121  | -0.297174 | 6.88E-06 | 20 |
| GCST90200605 | rs13423590  | A | C | 0.592697   | -0.11077  | 1.50E-07 | 28 |
| GCST90200605 | rs942568    | T | G | 0.877116   | -0.145464 | 2.57E-06 | 22 |
| GCST90200605 | rs79706936  | G | A | 0.0165837  | -0.371732 | 3.04E-06 | 22 |
| GCST90200605 | rs72941923  | A | C | 0.248727   | 0.107334  | 7.58E-06 | 20 |
| GCST90200605 | rs7047143   | C | T | 0.825113   | 0.120891  | 4.29E-06 | 21 |
| GCST90200605 | rs928262    | C | A | 0.0160428  | -0.375631 | 3.16E-06 | 22 |
| GCST90200605 | rs62253402  | G | A | 0.112598   | -0.141641 | 9.07E-06 | 20 |
| GCST90200605 | rs118139034 | A | G | 0.0353183  | 0.254177  | 2.24E-06 | 22 |
| GCST90200605 | rs140869233 | C | G | 0.0306482  | 0.271873  | 2.96E-06 | 22 |
| GCST90200605 | rs12362624  | G | A | 0.354128   | 0.0971705 | 4.08E-06 | 21 |
| GCST90200605 | rs111566352 | A | G | 0.033484   | -0.249733 | 7.89E-06 | 20 |
| GCST90200605 | rs10950500  | A | T | 0.379388   | 0.0943644 | 7.98E-06 | 20 |
| GCST90200605 | rs145147710 | T | C | 0.00828329 | -0.515271 | 3.95E-06 | 21 |
| GCST90200605 | rs78921699  | G | T | 0.032228   | -0.278343 | 1.28E-06 | 23 |
| GCST90200614 | rs9927398   | G | A | 0.598607   | 0.0721309 | 7.07E-06 | 20 |
| GCST90200614 | rs3821163   | G | A | 0.235604   | 0.0866421 | 2.96E-06 | 22 |
| GCST90200614 | rs149800477 | A | G | 0.019288   | -0.274161 | 1.63E-06 | 23 |
| GCST90200614 | rs117915593 | G | T | 0.0184291  | -0.307188 | 1.83E-07 | 27 |
| GCST90200614 | rs2220767   | A | G | 0.0161352  | -0.292702 | 3.44E-06 | 22 |
| GCST90200614 | rs17142279  | A | G | 0.0154384  | -0.287975 | 6.01E-06 | 20 |
| GCST90200614 | rs4391970   | G | A | 0.270303   | 0.0873876 | 5.90E-07 | 25 |
| GCST90200614 | rs72941124  | A | G | 0.130657   | 0.106009  | 7.12E-06 | 20 |

|              |             |   |   |           |            |          |    |
|--------------|-------------|---|---|-----------|------------|----------|----|
| GCST90200614 | rs7816532   | T | C | 0.501474  | 0.0782095  | 1.48E-06 | 23 |
| GCST90200614 | rs76868266  | C | G | 0.0496164 | 0.16078    | 8.81E-06 | 20 |
| GCST90200614 | rs77917462  | C | T | 0.0417514 | 0.195212   | 5.68E-07 | 25 |
| GCST90200614 | rs112168249 | C | G | 0.0230522 | -0.23305   | 8.60E-06 | 20 |
| GCST90200614 | rs73110052  | G | A | 0.15682   | 0.0974033  | 8.94E-06 | 20 |
| GCST90200614 | rs4300835   | G | T | 0.405307  | -0.0752913 | 3.10E-06 | 22 |
| GCST90200614 | rs3102876   | A | G | 0.0608546 | -0.166343  | 3.95E-07 | 26 |
| GCST90200614 | rs564895    | A | G | 0.0568341 | 0.151592   | 8.09E-06 | 20 |
| GCST90200614 | rs115755178 | C | T | 0.0254097 | -0.233763  | 2.94E-06 | 22 |
| GCST90200614 | rs62504810  | A | G | 0.0230593 | 0.25007    | 1.53E-06 | 23 |
| GCST90200614 | rs56312626  | C | A | 0.582529  | 0.0705583  | 8.50E-06 | 20 |
| GCST90200614 | rs142036634 | A | G | 0.0251789 | 0.222841   | 8.25E-06 | 20 |
| GCST90200614 | rs55712187  | C | T | 0.434098  | -0.0709326 | 7.38E-06 | 20 |
| GCST90200614 | rs2001732   | T | C | 0.144866  | 0.115548   | 1.97E-07 | 27 |
| GCST90200614 | rs141400230 | T | G | 0.0116412 | -0.328588  | 7.25E-06 | 20 |
| GCST90200618 | rs1474176   | G | A | 0.453389  | 0.0684486  | 6.71E-06 | 20 |
| GCST90200618 | rs1580550   | C | T | 0.945611  | 0.171987   | 1.86E-07 | 27 |
| GCST90200618 | rs117676889 | C | T | 0.0302883 | 0.218655   | 5.25E-07 | 25 |
| GCST90200618 | rs117353725 | A | C | 0.025447  | 0.222727   | 3.63E-06 | 21 |
| GCST90200618 | rs78052874  | A | C | 0.0267451 | -0.223944  | 2.02E-06 | 23 |
| GCST90200618 | rs2121125   | T | C | 0.402836  | -0.0684256 | 7.71E-06 | 20 |
| GCST90200618 | rs4607006   | G | A | 0.515282  | -0.0687629 | 4.19E-06 | 21 |
| GCST90200618 | rs1075485   | A | G | 0.703947  | 0.0814206  | 5.87E-07 | 25 |
| GCST90200618 | rs765693    | T | C | 0.0371477 | 0.173137   | 9.65E-06 | 20 |
| GCST90200618 | rs7040332   | T | C | 0.40586   | 0.0724916  | 1.94E-06 | 23 |
| GCST90200618 | rs10043238  | C | G | 0.307755  | 0.0720785  | 9.05E-06 | 20 |
| GCST90200618 | rs12209735  | T | G | 0.0726165 | -0.144715  | 7.85E-07 | 24 |
| GCST90200618 | rs3112826   | A | G | 0.241923  | -0.0789486 | 6.12E-06 | 20 |
| GCST90200618 | rs72843776  | C | G | 0.0265344 | -0.235069  | 5.23E-07 | 25 |
| GCST90200618 | rs4529574   | G | A | 0.130141  | 0.101346   | 5.43E-06 | 21 |
| GCST90200618 | rs887829    | T | C | 0.324067  | 0.0834006  | 1.51E-07 | 28 |

|              |             |   |   |            |            |           |     |
|--------------|-------------|---|---|------------|------------|-----------|-----|
| GCST90200618 | rs143663765 | T | C | 0.00871526 | -0.360802  | 7.52E-06  | 20  |
| GCST90200618 | rs76759186  | G | A | 0.0208917  | -0.232884  | 8.16E-06  | 20  |
| GCST90200618 | rs80053496  | A | G | 0.0208939  | -0.241725  | 2.99E-06  | 22  |
| GCST90200618 | rs9551925   | G | T | 0.275232   | 0.0795028  | 2.62E-06  | 22  |
| GCST90200619 | rs7089734   | A | G | 0.270167   | 0.0899391  | 2.00E-07  | 27  |
| GCST90200619 | rs7525473   | G | A | 0.283806   | -0.0801701 | 2.51E-06  | 22  |
| GCST90200619 | rs2735355   | A | C | 0.578485   | 0.0712015  | 3.83E-06  | 21  |
| GCST90200619 | rs192659671 | A | G | 0.00773099 | 0.40129    | 4.59E-06  | 21  |
| GCST90200619 | rs6658908   | T | C | 0.140506   | 0.101109   | 4.13E-06  | 21  |
| GCST90200619 | rs77030894  | A | G | 0.0120232  | 0.3108     | 9.56E-06  | 20  |
| GCST90200619 | rs514766    | A | G | 0.582097   | -0.0694488 | 8.56E-06  | 20  |
| GCST90200619 | rs16970457  | C | T | 0.0943855  | 0.12109    | 4.61E-06  | 21  |
| GCST90200619 | rs1260326   | C | T | 0.588165   | -0.073723  | 2.30E-06  | 22  |
| GCST90200619 | rs138301449 | A | G | 0.0151573  | 0.285462   | 5.92E-06  | 21  |
| GCST90200619 | rs935037    | G | A | 0.597917   | 0.0693211  | 8.65E-06  | 20  |
| GCST90200619 | rs185306466 | C | T | 0.0101194  | 0.344846   | 6.97E-06  | 20  |
| GCST90200619 | rs142298314 | A | C | 0.0176812  | -0.258145  | 9.21E-06  | 20  |
| GCST90200619 | rs72771860  | T | G | 0.0634466  | -0.154921  | 8.61E-07  | 24  |
| GCST90200619 | rs11144036  | A | G | 0.0324561  | 0.207609   | 1.30E-06  | 23  |
| GCST90200619 | rs17101423  | G | A | 0.0896037  | 0.143151   | 7.56E-08  | 29  |
| GCST90200619 | rs149906437 | T | C | 0.0270735  | 0.217237   | 5.00E-06  | 21  |
| GCST90200619 | rs112541098 | C | T | 0.0470855  | 0.15989    | 9.61E-06  | 20  |
| GCST90200619 | rs113564603 | G | C | 0.0227531  | 0.232946   | 4.70E-06  | 21  |
| GCST90200619 | rs11005466  | C | T | 0.0141048  | -0.311749  | 1.38E-06  | 23  |
| GCST90200634 | rs57629738  | C | A | 0.111214   | 0.134136   | 1.33E-06  | 23  |
| GCST90200634 | rs11084033  | A | C | 0.210654   | -0.0937459 | 8.29E-06  | 20  |
| GCST90200634 | rs233074    | C | T | 0.375798   | 0.390001   | 3.44E-119 | 539 |
| GCST90200634 | rs17515447  | C | G | 0.0761459  | 0.154526   | 1.30E-06  | 23  |
| GCST90200634 | rs114750737 | T | C | 0.0352332  | 0.207703   | 8.04E-06  | 20  |
| GCST90200634 | rs1920412   | C | T | 0.135347   | -0.127959  | 2.34E-07  | 27  |
| GCST90200634 | rs576827745 | C | T | 0.0840824  | -0.137709  | 8.51E-06  | 20  |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200634 | rs1709328   | G | T | 0.6868     | 0.0912616  | 7.58E-07 | 24  |
| GCST90200634 | rs34400381  | A | G | 0.0309287  | -0.275821  | 1.51E-08 | 32  |
| GCST90200634 | rs10058823  | T | C | 0.135511   | 0.11364    | 5.35E-06 | 21  |
| GCST90200634 | rs73300542  | A | T | 0.175749   | 0.102657   | 5.93E-06 | 21  |
| GCST90200634 | rs148200473 | G | A | 0.0166284  | -0.313237  | 3.44E-06 | 22  |
| GCST90200634 | rs683369    | C | G | 0.778602   | -0.135026  | 6.36E-11 | 43  |
| GCST90200634 | rs62151604  | T | C | 0.173394   | -0.116294  | 2.49E-07 | 27  |
| GCST90200634 | rs911592    | C | T | 0.857178   | 0.114229   | 3.23E-06 | 22  |
| GCST90200634 | rs6972638   | G | A | 0.184774   | 0.0983592  | 8.61E-06 | 20  |
| GCST90200634 | rs1238609   | G | T | 0.089277   | 0.158032   | 1.82E-07 | 27  |
| GCST90200634 | rs114992194 | T | C | 0.0259549  | 0.239666   | 8.18E-06 | 20  |
| GCST90200634 | rs13170299  | A | G | 0.0627581  | 0.202329   | 1.23E-08 | 32  |
| GCST90200634 | rs78664929  | A | C | 0.0363325  | 0.211836   | 3.30E-06 | 22  |
| GCST90200634 | rs6709127   | A | C | 0.186946   | 0.110539   | 5.42E-07 | 25  |
| GCST90200634 | rs28768812  | A | T | 0.402288   | -0.0799793 | 7.19E-06 | 20  |
| GCST90200634 | rs37369     | T | C | 0.0699592  | -0.597494  | 5.20E-74 | 331 |
| GCST90200646 | rs112201728 | T | C | 0.0694843  | 0.167666   | 2.43E-08 | 31  |
| GCST90200646 | rs111508080 | A | G | 0.0223125  | 0.235298   | 5.62E-06 | 21  |
| GCST90200646 | rs112453126 | A | C | 0.0161572  | -0.298547  | 1.12E-06 | 24  |
| GCST90200646 | rs172168    | C | T | 0.720094   | -0.0797696 | 3.19E-06 | 22  |
| GCST90200646 | rs7705826   | G | T | 0.8345     | 0.129022   | 3.55E-10 | 39  |
| GCST90200646 | rs7248534   | T | A | 0.616461   | -0.0725296 | 4.61E-06 | 21  |
| GCST90200646 | rs79861717  | G | A | 0.0660248  | -0.15386   | 7.12E-07 | 25  |
| GCST90200646 | rs72789436  | T | C | 0.0291777  | -0.229097  | 6.04E-07 | 25  |
| GCST90200646 | rs117478664 | C | T | 0.0186246  | 0.255419   | 7.00E-06 | 20  |
| GCST90200646 | rs61934126  | G | A | 0.00687844 | 0.438658   | 2.53E-06 | 22  |
| GCST90200646 | rs80298372  | T | A | 0.27526    | 0.0788477  | 6.12E-06 | 20  |
| GCST90200646 | rs112440664 | A | G | 0.0147914  | -0.296193  | 3.53E-06 | 22  |
| GCST90200646 | rs7381210   | C | T | 0.573649   | 0.0735821  | 2.25E-06 | 22  |
| GCST90200646 | rs141504352 | T | C | 0.0804108  | 0.129492   | 3.72E-06 | 21  |
| GCST90200646 | rs1171617   | T | G | 0.768183   | 0.114851   | 5.55E-10 | 38  |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200646 | rs10466245  | A | G | 0.247293   | -0.107515  | 1.27E-09 | 37  |
| GCST90200646 | rs1564348   | C | T | 0.163809   | 0.121833   | 3.20E-09 | 35  |
| GCST90200646 | rs77762079  | A | C | 0.0388653  | -0.486657  | 4.74E-35 | 153 |
| GCST90200646 | rs62182023  | T | C | 0.174103   | -0.09172   | 5.60E-06 | 21  |
| GCST90200646 | rs2935715   | C | A | 0.933592   | -0.154071  | 5.53E-07 | 25  |
| GCST90200646 | rs780093    | C | T | 0.598      | -0.0874499 | 2.20E-08 | 31  |
| GCST90200646 | rs7761203   | A | G | 0.850195   | -0.100891  | 3.19E-06 | 22  |
| GCST90200646 | rs34286353  | T | C | 0.0203207  | -0.246079  | 6.27E-06 | 20  |
| GCST90200646 | rs41308631  | A | T | 0.0111291  | -0.336482  | 4.55E-06 | 21  |
| GCST90200646 | rs2469355   | A | C | 0.873917   | -0.111636  | 1.78E-06 | 23  |
| GCST90200646 | rs77487500  | C | T | 0.028472   | -0.21146   | 4.04E-06 | 21  |
| GCST90200646 | rs184374415 | C | T | 0.00853157 | -0.396233  | 1.54E-06 | 23  |
| GCST90200646 | rs7736346   | T | C | 0.220094   | 0.0860337  | 4.76E-06 | 21  |
| GCST90200646 | rs73206034  | A | G | 0.039636   | -0.191283  | 9.00E-07 | 24  |
| GCST90200646 | rs142059872 | A | G | 0.0128285  | 0.522014   | 1.25E-14 | 59  |
| GCST90200646 | rs140123529 | G | A | 0.0625394  | -0.142604  | 7.79E-06 | 20  |
| GCST90200646 | rs17543599  | T | G | 0.187882   | 0.0867788  | 9.26E-06 | 20  |
| GCST90200650 | rs2731879   | G | T | 0.130543   | -0.107035  | 5.73E-06 | 21  |
| GCST90200650 | rs546547    | A | G | 0.23762    | -0.0885573 | 4.53E-06 | 21  |
| GCST90200650 | rs10912697  | A | G | 0.373909   | -0.203531  | 3.14E-34 | 149 |
| GCST90200650 | rs648899    | A | C | 0.0432323  | -0.196462  | 4.06E-07 | 26  |
| GCST90200650 | rs59948404  | G | A | 0.142614   | 0.103155   | 8.08E-06 | 20  |
| GCST90200650 | rs2119658   | G | A | 0.719577   | 0.0833835  | 6.09E-06 | 20  |
| GCST90200650 | rs28385669  | G | C | 0.0193898  | -0.256004  | 9.17E-06 | 20  |
| GCST90200650 | rs10151745  | C | T | 0.37598    | -0.0732385 | 8.53E-06 | 20  |
| GCST90200650 | rs4885148   | G | A | 0.148738   | -0.101622  | 6.14E-06 | 20  |
| GCST90200650 | rs77140465  | C | T | 0.068598   | -0.15125   | 1.61E-06 | 23  |
| GCST90200650 | rs10420267  | A | G | 0.372065   | 0.0759716  | 4.77E-06 | 21  |
| GCST90200650 | rs1535028   | C | T | 0.294134   | 0.0812578  | 4.85E-06 | 21  |
| GCST90200650 | rs6829840   | G | A | 0.0900979  | 0.130513   | 2.79E-06 | 22  |
| GCST90200650 | rs4694087   | C | G | 0.716021   | 0.0788253  | 8.80E-06 | 20  |

|              |             |   |   |            |            |           |      |
|--------------|-------------|---|---|------------|------------|-----------|------|
| GCST90200650 | rs6942575   | G | A | 0.0370245  | -0.191843  | 5.75E-06  | 21   |
| GCST90200650 | rs4837497   | T | C | 0.671202   | -0.0787762 | 5.04E-06  | 21   |
| GCST90200650 | rs141596774 | T | C | 0.0208614  | 0.250356   | 7.67E-06  | 20   |
| GCST90200650 | rs112054972 | G | A | 0.0313256  | -0.215652  | 2.46E-06  | 22   |
| GCST90200650 | rs140679964 | C | A | 0.0170653  | 0.292465   | 1.93E-06  | 23   |
| GCST90200650 | rs12682880  | G | A | 0.334814   | 0.0763322  | 5.82E-06  | 21   |
| GCST90200650 | rs144533375 | A | C | 0.0161593  | 0.287628   | 4.95E-06  | 21   |
| GCST90200650 | rs8087087   | A | G | 0.141399   | -0.11365   | 6.03E-07  | 25   |
| GCST90200650 | rs2160387   | C | T | 0.428658   | -0.0766753 | 1.64E-06  | 23   |
| GCST90200650 | rs148055308 | A | G | 0.035579   | 0.194837   | 6.46E-06  | 20   |
| GCST90200650 | rs6029767   | A | G | 0.244651   | 0.0873412  | 3.24E-06  | 22   |
| GCST90200650 | rs11782416  | G | T | 0.127955   | 0.11208    | 2.34E-06  | 22   |
| GCST90200650 | rs113546842 | A | G | 0.024722   | 0.231524   | 6.35E-06  | 20   |
| GCST90200650 | rs13204664  | G | A | 0.137915   | -0.105201  | 5.57E-06  | 21   |
| GCST90200650 | rs11681343  | T | C | 0.12263    | 0.109982   | 6.87E-06  | 20   |
| GCST90200651 | rs111471249 | T | C | 0.034342   | -0.204596  | 1.43E-06  | 23   |
| GCST90200651 | rs7228052   | G | A | 0.0957515  | 0.118402   | 8.35E-06  | 20   |
| GCST90200651 | rs6867115   | C | T | 0.0153421  | 0.279746   | 7.23E-06  | 20   |
| GCST90200651 | rs72651926  | A | G | 0.167827   | -0.252884  | 1.62E-34  | 150  |
| GCST90200651 | rs2342307   | G | A | 0.618502   | -0.105941  | 3.99E-11  | 44   |
| GCST90200651 | rs2270483   | G | C | 0.117813   | -0.106763  | 9.59E-06  | 20   |
| GCST90200651 | rs9884390   | C | T | 0.218851   | -0.587303  | 1.00E-200 | 1087 |
| GCST90200651 | rs112391889 | A | G | 0.0204939  | 0.248252   | 4.63E-06  | 21   |
| GCST90200651 | rs9507130   | A | G | 0.451822   | 0.0730107  | 5.10E-06  | 21   |
| GCST90200651 | rs28446229  | A | T | 0.274496   | 0.0868229  | 4.48E-07  | 25   |
| GCST90200651 | rs11494550  | C | T | 0.846826   | 0.102311   | 2.17E-06  | 22   |
| GCST90200651 | rs73193566  | A | C | 0.00849069 | -0.37719   | 8.99E-06  | 20   |
| GCST90200651 | rs147584689 | A | G | 0.0128092  | -0.301707  | 9.98E-06  | 20   |
| GCST90200651 | rs1996598   | T | C | 0.24387    | 0.104972   | 8.07E-09  | 33   |
| GCST90200651 | rs148982377 | C | T | 0.0329071  | -0.474046  | 2.07E-28  | 122  |
| GCST90200651 | rs74543347  | T | C | 0.0155136  | 0.276715   | 9.16E-06  | 20   |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200651 | rs62129968  | A | C | 0.161381   | -0.190437  | 1.01E-19 | 83  |
| GCST90200651 | rs56028148  | T | C | 0.118442   | 0.202943   | 2.89E-17 | 71  |
| GCST90200651 | rs6456703   | T | C | 0.24728    | 0.127328   | 1.54E-12 | 50  |
| GCST90200651 | rs7941822   | G | A | 0.492197   | 0.0748969  | 1.30E-06 | 23  |
| GCST90200651 | rs74910762  | A | C | 0.0534054  | -0.154943  | 7.61E-06 | 20  |
| GCST90200651 | rs78528502  | T | C | 0.0470588  | -0.194636  | 6.34E-08 | 29  |
| GCST90200651 | rs78452056  | T | G | 0.0170207  | -0.274902  | 5.69E-06 | 21  |
| GCST90200651 | rs28513832  | T | C | 0.0438663  | -0.179294  | 2.04E-06 | 23  |
| GCST90200651 | rs34079678  | T | C | 0.12385    | 0.108713   | 4.62E-06 | 21  |
| GCST90200651 | rs75015765  | A | T | 0.0146707  | -0.305226  | 2.49E-06 | 22  |
| GCST90200673 | rs274555    | T | C | 0.407356   | 0.100869   | 1.96E-10 | 41  |
| GCST90200673 | rs149206673 | G | A | 0.0252174  | 0.222847   | 6.32E-06 | 20  |
| GCST90200673 | rs148442117 | C | A | 0.00563677 | -0.493152  | 1.76E-06 | 23  |
| GCST90200673 | rs2516078   | C | T | 0.390359   | -0.199246  | 2.25E-36 | 159 |
| GCST90200673 | rs79769366  | C | T | 0.0463261  | 0.173856   | 1.66E-06 | 23  |
| GCST90200673 | rs7863978   | T | C | 0.0645161  | -0.14769   | 2.18E-06 | 22  |
| GCST90200673 | rs139124223 | C | T | 0.00699344 | -0.423081  | 4.17E-06 | 21  |
| GCST90200673 | rs203326    | C | T | 0.774628   | 0.134678   | 1.76E-13 | 54  |
| GCST90200673 | rs73112266  | T | C | 0.00538433 | -0.478482  | 4.51E-06 | 21  |
| GCST90200673 | rs148899781 | T | G | 0.0130994  | 0.309471   | 5.58E-06 | 21  |
| GCST90200673 | rs73141858  | A | G | 0.017467   | 0.276262   | 2.42E-06 | 22  |
| GCST90200673 | rs13299371  | T | A | 0.19852    | 0.0906259  | 3.60E-06 | 21  |
| GCST90200673 | rs4796274   | G | A | 0.331664   | -0.0734298 | 7.17E-06 | 20  |
| GCST90200673 | rs77823243  | G | A | 0.0298128  | 0.202267   | 8.15E-06 | 20  |
| GCST90200673 | rs71454677  | T | C | 0.0179481  | 0.385428   | 2.11E-11 | 45  |
| GCST90200673 | rs28491272  | C | T | 0.529487   | -0.0775557 | 8.51E-07 | 24  |
| GCST90200673 | rs6977301   | G | A | 0.920523   | 0.132834   | 7.30E-06 | 20  |
| GCST90200673 | rs80254170  | G | A | 0.0758884  | -0.163483  | 1.35E-08 | 32  |
| GCST90200673 | rs77954206  | A | G | 0.0823336  | -0.125031  | 9.27E-06 | 20  |
| GCST90200673 | rs144647217 | A | G | 0.125063   | -0.105844  | 6.03E-06 | 20  |
| GCST90200673 | rs13261288  | G | A | 0.468723   | -0.0783573 | 3.19E-07 | 26  |

|              |             |   |   |            |            |           |      |
|--------------|-------------|---|---|------------|------------|-----------|------|
| GCST90200673 | rs662138    | G | C | 0.176544   | -0.200117  | 2.63E-23  | 99   |
| GCST90200673 | rs76508054  | C | T | 0.0109421  | 0.325484   | 9.67E-06  | 20   |
| GCST90200673 | rs7975067   | A | G | 0.36554    | 0.637817   | 1.00E-200 | 1885 |
| GCST90200673 | rs80189144  | C | T | 0.118463   | -0.113376  | 1.86E-06  | 23   |
| GCST90200673 | rs11239569  | A | C | 0.251462   | -0.083663  | 2.50E-06  | 22   |
| GCST90200673 | rs12809185  | C | A | 0.0917363  | 0.178401   | 2.74E-11  | 44   |
| GCST90200673 | rs77561473  | A | C | 0.0686796  | 0.135282   | 9.27E-06  | 20   |
| GCST90200673 | rs78304556  | A | G | 0.00462849 | -0.550143  | 1.27E-06  | 23   |
| GCST90200673 | rs4814829   | T | C | 0.0750975  | 0.133996   | 7.76E-06  | 20   |
| GCST90200673 | rs62377732  | T | C | 0.27625    | -0.0842757 | 1.60E-06  | 23   |
| GCST90200673 | rs11192260  | T | C | 0.220151   | 0.0908877  | 1.02E-06  | 24   |
| GCST90200673 | rs1171617   | T | G | 0.768613   | 0.216835   | 1.18E-31  | 137  |
| GCST90200673 | rs74805465  | C | A | 0.0859743  | 0.136734   | 6.27E-07  | 25   |
| GCST90200673 | rs11686561  | G | A | 0.431789   | 0.070434   | 8.82E-06  | 20   |
| GCST90200673 | rs12248294  | G | C | 0.0863117  | -0.128267  | 3.28E-06  | 22   |
| GCST90200673 | rs76218244  | C | A | 0.0242473  | 0.242083   | 1.26E-06  | 23   |
| GCST90200673 | rs61838469  | C | T | 0.600708   | 0.0743917  | 3.31E-06  | 22   |
| GCST90200685 | rs6104733   | C | T | 0.150734   | 0.0948662  | 9.91E-06  | 20   |
| GCST90200685 | rs174528    | C | T | 0.367266   | -0.620017  | 1.00E-200 | 1821 |
| GCST90200685 | rs58542926  | T | C | 0.0756583  | -0.175261  | 1.61E-09  | 36   |
| GCST90200685 | rs4927890   | G | T | 0.156826   | -0.0952233 | 5.47E-06  | 21   |
| GCST90200685 | rs38854     | T | C | 0.441566   | -0.0691425 | 7.55E-06  | 20   |
| GCST90200685 | rs17081005  | T | C | 0.0276766  | -0.205288  | 9.97E-06  | 20   |
| GCST90200685 | rs192510422 | G | A | 0.00382607 | 0.574017   | 3.44E-06  | 22   |
| GCST90200685 | rs138664701 | C | T | 0.006678   | -0.426787  | 5.42E-06  | 21   |
| GCST90200685 | rs35179427  | A | G | 0.0840112  | -0.151769  | 2.32E-08  | 31   |
| GCST90200685 | rs62207051  | G | A | 0.0542645  | 0.149723   | 9.16E-06  | 20   |
| GCST90200685 | rs73285484  | G | C | 0.0524424  | -0.151626  | 7.64E-06  | 20   |
| GCST90200685 | rs35545453  | C | T | 0.00970285 | -0.359222  | 4.18E-06  | 21   |
| GCST90200685 | rs116903888 | T | C | 0.0177591  | -0.261782  | 6.26E-06  | 20   |
| GCST90200685 | rs56257608  | T | C | 0.39173    | -0.0745031 | 2.88E-06  | 22   |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200685 | rs897458    | C | T | 0.615299   | -0.0838318 | 1.02E-07 | 28 |
| GCST90200685 | rs558406    | C | A | 0.0751526  | 0.140693   | 9.48E-07 | 24 |
| GCST90200685 | rs2668899   | G | A | 0.299695   | -0.118197  | 1.14E-12 | 51 |
| GCST90200685 | rs2041081   | T | C | 0.640425   | 0.0725342  | 7.71E-06 | 20 |
| GCST90200685 | rs79629507  | T | C | 0.0477445  | -0.159651  | 9.62E-06 | 20 |
| GCST90200685 | rs184489125 | G | A | 0.00995146 | -0.346015  | 6.34E-06 | 20 |
| GCST90200685 | rs2238001   | C | T | 0.130242   | 0.14314    | 2.82E-10 | 40 |
| GCST90200685 | rs2194294   | G | A | 0.632149   | 0.0721764  | 5.58E-06 | 21 |
| GCST90200685 | rs6661669   | C | T | 0.600798   | 0.0748226  | 1.43E-06 | 23 |
| GCST90200685 | rs10747457  | G | A | 0.806468   | -0.091317  | 2.64E-06 | 22 |
| GCST90200685 | rs58411334  | T | G | 0.0974231  | -0.113556  | 9.99E-06 | 20 |
| GCST90200685 | rs7149812   | C | A | 0.634192   | -0.0721572 | 6.53E-06 | 20 |
| GCST90200685 | rs17116404  | C | A | 0.145935   | 0.0988731  | 7.10E-06 | 20 |
| GCST90200685 | rs914938    | G | C | 0.930228   | 0.143761   | 1.31E-06 | 23 |
| GCST90200685 | rs77525775  | T | C | 0.0215967  | 0.234312   | 8.64E-06 | 20 |
| GCST90200685 | rs74025961  | T | C | 0.0449022  | 0.17067    | 3.47E-06 | 22 |
| GCST90200685 | rs7043767   | T | C | 0.348024   | 0.0725912  | 7.22E-06 | 20 |
| GCST90200685 | rs10969279  | T | C | 0.483112   | 0.0776696  | 5.11E-07 | 25 |
| GCST90200685 | rs12928099  | A | C | 0.290774   | 0.124193   | 1.08E-13 | 55 |
| GCST90200685 | rs964184    | C | G | 0.869013   | -0.107878  | 1.77E-06 | 23 |
| GCST90200692 | rs7137322   | A | T | 0.339423   | 0.0756121  | 8.36E-06 | 20 |
| GCST90200692 | rs188247550 | T | C | 0.0105341  | -0.357389  | 2.28E-06 | 22 |
| GCST90200692 | rs17092358  | C | T | 0.0389031  | 0.177507   | 8.41E-06 | 20 |
| GCST90200692 | rs10884110  | G | A | 0.186526   | -0.0913236 | 4.28E-06 | 21 |
| GCST90200692 | rs79032346  | G | A | 0.0970023  | -0.125499  | 2.80E-06 | 22 |
| GCST90200692 | rs112414147 | C | T | 0.0223121  | -0.237992  | 5.08E-06 | 21 |
| GCST90200692 | rs139420442 | G | T | 0.00607903 | -0.46871   | 2.35E-06 | 22 |
| GCST90200692 | rs73002956  | G | A | 0.082085   | -0.144595  | 3.33E-07 | 26 |
| GCST90200692 | rs925802    | G | A | 0.154976   | -0.0941649 | 9.46E-06 | 20 |
| GCST90200692 | rs17081005  | T | C | 0.0276055  | -0.210294  | 7.67E-06 | 20 |
| GCST90200692 | rs11207997  | T | C | 0.340105   | -0.0779034 | 1.20E-06 | 24 |

|              |             |   |   |            |            |           |      |
|--------------|-------------|---|---|------------|------------|-----------|------|
| GCST90200692 | rs174533    | A | G | 0.335714   | -0.613794  | 1.00E-200 | 1674 |
| GCST90200692 | rs34617177  | T | C | 0.0276694  | -0.226415  | 1.53E-06  | 23   |
| GCST90200692 | rs1801390   | T | C | 0.0281391  | -0.215024  | 3.20E-06  | 22   |
| GCST90200692 | rs142782776 | A | G | 0.0182218  | -0.258565  | 6.30E-06  | 20   |
| GCST90200692 | rs6036719   | G | A | 0.709092   | 0.0782628  | 7.00E-06  | 20   |
| GCST90200692 | rs10738915  | A | G | 0.381826   | 0.0779976  | 1.04E-06  | 24   |
| GCST90200692 | rs1047738   | G | C | 0.389767   | 0.0814984  | 2.72E-07  | 26   |
| GCST90200692 | rs1985147   | T | C | 0.846482   | -0.0972986 | 5.43E-06  | 21   |
| GCST90200692 | rs6476871   | A | G | 0.194044   | -0.0979003 | 6.60E-07  | 25   |
| GCST90200692 | rs1526804   | G | A | 0.843858   | 0.0955982  | 7.79E-06  | 20   |
| GCST90200692 | rs139567637 | G | A | 0.0185345  | -0.253176  | 7.49E-06  | 20   |
| GCST90200692 | rs964184    | C | G | 0.868911   | -0.107419  | 2.47E-06  | 22   |
| GCST90200692 | rs12928099  | A | C | 0.290818   | 0.123974   | 2.08E-13  | 54   |
| GCST90200692 | rs144691575 | C | T | 0.0274189  | -0.216768  | 6.22E-06  | 20   |
| GCST90200692 | rs182180380 | A | G | 0.0105057  | 0.342398   | 6.73E-06  | 20   |
| GCST90200692 | rs10176700  | C | G | 0.015995   | -0.27483   | 9.96E-06  | 20   |
| GCST90200692 | rs75460503  | G | T | 0.030865   | -0.202408  | 4.64E-06  | 21   |
| GCST90200692 | rs6064992   | C | G | 0.274594   | -0.0779995 | 5.98E-06  | 20   |
| GCST90200692 | rs2434885   | T | C | 0.193707   | -0.0883465 | 6.52E-06  | 20   |
| GCST90200692 | rs35545453  | C | T | 0.00972054 | -0.359102  | 5.17E-06  | 21   |
| GCST90200740 | rs9890740   | T | G | 0.151966   | -0.10295   | 1.98E-06  | 23   |
| GCST90200740 | rs12928099  | A | C | 0.290632   | 0.0984964  | 6.16E-09  | 34   |
| GCST90200740 | rs13088039  | T | C | 0.148896   | 0.0965996  | 9.01E-06  | 20   |
| GCST90200740 | rs138208818 | G | A | 0.0295094  | 0.2105     | 4.31E-06  | 21   |
| GCST90200740 | rs144708001 | C | T | 0.01947    | 0.252562   | 8.57E-06  | 20   |
| GCST90200740 | rs16899695  | G | A | 0.00848291 | 0.394343   | 2.58E-06  | 22   |
| GCST90200740 | rs16957265  | C | T | 0.0385982  | 0.177193   | 9.78E-06  | 20   |
| GCST90200740 | rs174564    | G | A | 0.345621   | -0.441216  | 2.81E-178 | 811  |
| GCST90200740 | rs2225571   | C | A | 0.299099   | 0.0791973  | 2.69E-06  | 22   |
| GCST90200740 | rs2391627   | G | T | 0.501059   | 0.0710192  | 5.80E-06  | 21   |
| GCST90200740 | rs58578755  | T | G | 0.505035   | 0.073649   | 2.02E-06  | 23   |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200740 | rs61918202  | C | T | 0.0868392  | 0.133357   | 1.24E-06 | 24  |
| GCST90200740 | rs62230179  | T | G | 0.0823     | 0.135877   | 2.53E-06 | 22  |
| GCST90200740 | rs62381404  | A | G | 0.191198   | 0.0879243  | 7.19E-06 | 20  |
| GCST90200740 | rs73004975  | G | A | 0.0808571  | -0.128873  | 6.05E-06 | 20  |
| GCST90200740 | rs73090756  | C | T | 0.0292383  | 0.205578   | 6.79E-06 | 20  |
| GCST90200740 | rs73155110  | T | G | 0.0158263  | -0.321502  | 2.40E-07 | 27  |
| GCST90200740 | rs76262221  | C | T | 0.0144537  | 0.280078   | 9.91E-06 | 20  |
| GCST90200740 | rs78964845  | A | G | 0.0191153  | 0.270098   | 1.99E-06 | 23  |
| GCST90200769 | rs73565833  | T | C | 0.0277642  | 0.207217   | 5.42E-06 | 21  |
| GCST90200769 | rs11225514  | G | A | 0.121885   | 0.101873   | 9.32E-06 | 20  |
| GCST90200769 | rs62339020  | T | G | 0.0270984  | -0.2077    | 8.51E-06 | 20  |
| GCST90200769 | rs80304954  | G | A | 0.0351863  | -0.193691  | 2.48E-06 | 22  |
| GCST90200769 | rs2800902   | A | T | 0.813091   | 0.0918674  | 2.95E-06 | 22  |
| GCST90200769 | rs17665774  | T | C | 0.156724   | 0.10228    | 7.86E-07 | 24  |
| GCST90200769 | rs189027424 | T | C | 0.00872803 | -0.364795  | 7.30E-06 | 20  |
| GCST90200769 | rs73331384  | A | G | 0.0167908  | -0.27417   | 2.75E-06 | 22  |
| GCST90200769 | rs1260326   | C | T | 0.5883     | -0.223397  | 5.25E-49 | 216 |
| GCST90200769 | rs117707626 | G | T | 0.0195146  | 0.243862   | 7.52E-06 | 20  |
| GCST90200769 | rs17060302  | C | T | 0.0867013  | -0.120048  | 7.64E-06 | 20  |
| GCST90200769 | rs2399029   | T | C | 0.855338   | 0.0992752  | 3.85E-06 | 21  |
| GCST90200769 | rs67573838  | T | C | 0.232287   | -0.0792175 | 8.75E-06 | 20  |
| GCST90200769 | rs142336544 | C | T | 0.0159243  | 0.278077   | 4.16E-06 | 21  |
| GCST90200769 | rs115554300 | A | C | 0.0128111  | -0.307909  | 3.97E-06 | 21  |
| GCST90200769 | rs13009343  | T | G | 0.0265886  | 0.20935    | 8.02E-06 | 20  |
| GCST90200769 | rs62463241  | C | G | 0.223987   | 0.0870733  | 3.51E-06 | 22  |
| GCST90200769 | rs28496399  | C | T | 0.969753   | 0.203032   | 9.51E-06 | 20  |
| GCST90200769 | rs166163    | C | G | 0.249417   | 0.0797237  | 5.16E-06 | 21  |
| GCST90200769 | rs138453060 | C | T | 0.0102379  | -0.341485  | 3.98E-06 | 21  |
| GCST90200769 | rs147922120 | A | G | 0.0235538  | 0.226625   | 4.63E-06 | 21  |
| GCST90200804 | rs72799097  | G | A | 0.0147831  | 0.31891    | 3.06E-06 | 22  |
| GCST90200804 | rs113481882 | A | G | 0.0650927  | 0.164671   | 2.24E-06 | 22  |

|              |             |   |   |           |           |          |    |
|--------------|-------------|---|---|-----------|-----------|----------|----|
| GCST90200804 | rs144557514 | T | G | 0.0114203 | -0.359113 | 3.94E-06 | 21 |
| GCST90200804 | rs419949    | A | G | 0.196451  | 0.0920839 | 9.20E-06 | 20 |
| GCST90200804 | rs62060100  | C | T | 0.0329837 | 0.225384  | 1.14E-06 | 24 |
| GCST90200804 | rs12441481  | A | G | 0.290202  | 0.0851779 | 4.80E-06 | 21 |
| GCST90200804 | rs3811444   | T | C | 0.34967   | 0.104572  | 1.49E-09 | 37 |
| GCST90200804 | rs8026200   | T | C | 0.0549209 | -0.182662 | 4.48E-07 | 25 |
| GCST90200804 | rs810193    | A | G | 0.149849  | -0.105987 | 4.27E-06 | 21 |
| GCST90200804 | rs2398822   | T | C | 0.6394    | 0.0775737 | 7.13E-06 | 20 |
| GCST90200804 | rs117407027 | A | G | 0.0182522 | 0.274199  | 9.33E-06 | 20 |
| GCST90200804 | rs66959455  | T | C | 0.298065  | 0.0953859 | 1.22E-07 | 28 |
| GCST90200804 | rs140613663 | C | T | 0.0705357 | 0.14518   | 5.67E-06 | 21 |
| GCST90200804 | rs62454450  | A | G | 0.0100097 | 0.375102  | 6.90E-06 | 20 |
| GCST90200804 | rs78708293  | A | G | 0.013927  | 0.315814  | 7.32E-06 | 20 |
| GCST90200841 | rs1041213   | G | A | 0.604031  | -0.10641  | 6.41E-07 | 25 |
| GCST90200841 | rs62103136  | C | T | 0.0808036 | -0.167809 | 9.69E-06 | 20 |
| GCST90200841 | rs143031595 | G | C | 0.0369615 | 0.275022  | 1.08E-06 | 24 |
| GCST90200841 | rs116946648 | A | G | 0.0056044 | 0.646415  | 3.29E-06 | 22 |
| GCST90200841 | rs7829662   | G | T | 0.156371  | -0.136699 | 5.14E-06 | 21 |
| GCST90200841 | rs74754867  | C | T | 0.0194848 | 0.346644  | 2.75E-06 | 22 |
| GCST90200841 | rs11132432  | C | T | 0.148348  | 0.137828  | 2.68E-06 | 22 |
| GCST90200841 | rs79011498  | G | C | 0.0171617 | -0.351531 | 9.45E-06 | 20 |
| GCST90200841 | rs1882315   | G | A | 0.0699579 | 0.181374  | 9.02E-06 | 20 |
| GCST90200841 | rs11695769  | A | G | 0.479343  | 0.0942352 | 7.11E-06 | 20 |
| GCST90200841 | rs6920224   | C | A | 0.144926  | -0.137819 | 4.60E-06 | 21 |
| GCST90200841 | rs140272073 | T | C | 0.0230379 | -0.372876 | 8.02E-08 | 29 |
| GCST90200841 | rs80332390  | C | A | 0.0290301 | 0.288956  | 2.96E-06 | 22 |
| GCST90200841 | rs77632972  | C | A | 0.148481  | -0.128786 | 8.56E-06 | 20 |
| GCST90200841 | rs7305350   | G | A | 0.0308927 | 0.276821  | 2.30E-06 | 22 |
| GCST90200841 | rs34231010  | C | T | 0.263007  | 0.104381  | 8.56E-06 | 20 |
| GCST90200841 | rs2181066   | T | C | 0.399706  | 0.0961486 | 7.98E-06 | 20 |
| GCST90200841 | rs2299639   | T | C | 0.20608   | -0.12227  | 1.86E-06 | 23 |

|              |             |   |   |             |            |          |    |
|--------------|-------------|---|---|-------------|------------|----------|----|
| GCST90200841 | rs113352152 | T | C | 0.000593261 | 1.98415    | 7.03E-06 | 20 |
| GCST90200841 | rs28757678  | A | C | 0.408703    | -0.0993749 | 5.43E-06 | 21 |
| GCST90200841 | rs10785350  | T | C | 0.235887    | 0.111842   | 4.39E-06 | 21 |
| GCST90200841 | rs12805594  | T | C | 0.319802    | -0.101867  | 4.47E-06 | 21 |
| GCST90200841 | rs140613771 | T | C | 0.00932297  | 0.503792   | 1.57E-06 | 23 |
| GCST90200844 | rs2291133   | T | G | 0.406929    | -0.0678848 | 4.28E-06 | 21 |
| GCST90200844 | rs79961837  | T | C | 0.0126177   | 0.307132   | 2.16E-06 | 22 |
| GCST90200844 | rs17331931  | G | A | 0.0882175   | -0.124791  | 1.19E-06 | 24 |
| GCST90200844 | rs56257551  | T | C | 0.103311    | 0.106765   | 8.11E-06 | 20 |
| GCST90200844 | rs12636534  | A | G | 0.12605     | 0.0972599  | 8.96E-06 | 20 |
| GCST90200844 | rs75628965  | T | C | 0.0452571   | 0.161582   | 2.83E-06 | 22 |
| GCST90200844 | rs4639218   | T | C | 0.406345    | 0.0660088  | 7.60E-06 | 20 |
| GCST90200844 | rs139461673 | C | T | 0.0162468   | 0.251288   | 9.59E-06 | 20 |
| GCST90200844 | rs111383346 | T | G | 0.0524822   | 0.150161   | 3.98E-06 | 21 |
| GCST90200844 | rs140924568 | T | C | 0.0129216   | -0.282906  | 9.68E-06 | 20 |
| GCST90200844 | rs60084385  | G | T | 0.441624    | 0.0722066  | 8.70E-07 | 24 |
| GCST90200844 | rs1354034   | C | T | 0.609248    | 0.146352   | 5.09E-23 | 98 |
| GCST90200844 | rs62354638  | A | G | 0.0317978   | -0.221323  | 9.39E-08 | 28 |
| GCST90200844 | rs75061547  | C | A | 0.116028    | -0.111316  | 1.76E-06 | 23 |
| GCST90200844 | rs12102586  | T | C | 0.0868958   | 0.127288   | 7.05E-07 | 25 |
| GCST90200844 | rs113402032 | A | G | 0.151717    | 0.100827   | 5.77E-07 | 25 |
| GCST90200844 | rs62366562  | G | A | 0.750411    | 0.0757264  | 7.10E-06 | 20 |
| GCST90200854 | rs74763072  | A | G | 0.0246347   | -0.262285  | 9.72E-08 | 28 |
| GCST90200854 | rs74106750  | T | G | 0.12711     | 0.114004   | 6.03E-07 | 25 |
| GCST90200854 | rs76232677  | A | G | 0.0261761   | 0.215607   | 4.77E-06 | 21 |
| GCST90200854 | rs2182168   | G | C | 0.352877    | 0.126294   | 9.66E-16 | 64 |
| GCST90200854 | rs2246012   | C | T | 0.16021     | 0.172925   | 2.42E-17 | 72 |
| GCST90200854 | rs4931193   | A | G | 0.567786    | 0.0703765  | 4.86E-06 | 21 |
| GCST90200854 | rs11128705  | C | T | 0.717794    | 0.075734   | 7.65E-06 | 20 |
| GCST90200854 | rs117014867 | T | C | 0.036762    | -0.180223  | 7.79E-06 | 20 |
| GCST90200854 | rs17249437  | C | T | 0.247885    | -0.0845707 | 1.58E-06 | 23 |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200854 | rs7992553   | C | A | 0.451106   | 0.0714725  | 7.25E-06 | 20 |
| GCST90200854 | rs116883473 | G | A | 0.0114338  | -0.316448  | 9.10E-06 | 20 |
| GCST90200854 | rs150284500 | T | A | 0.0135234  | 0.303137   | 3.55E-06 | 21 |
| GCST90200854 | rs1671509   | T | C | 0.470197   | -0.0695003 | 4.94E-06 | 21 |
| GCST90200854 | rs77032225  | A | G | 0.00805085 | -0.38538   | 5.13E-06 | 21 |
| GCST90200854 | rs17688269  | T | G | 0.318622   | 0.0804478  | 1.41E-06 | 23 |
| GCST90200854 | rs1047891   | A | C | 0.309599   | -0.079964  | 1.18E-06 | 24 |
| GCST90200854 | rs75365886  | T | C | 0.0150923  | 0.27715    | 7.62E-06 | 20 |
| GCST90200854 | rs4502705   | A | G | 0.637314   | 0.0891251  | 2.29E-08 | 31 |
| GCST90200854 | rs145741630 | G | C | 0.0153948  | 0.303626   | 9.57E-07 | 24 |
| GCST90200854 | rs4654748   | T | C | 0.483818   | -0.0775281 | 3.24E-07 | 26 |
| GCST90200854 | rs12328316  | G | A | 0.245099   | 0.0804174  | 7.50E-06 | 20 |
| GCST90200854 | rs10171897  | G | A | 0.172908   | 0.0931545  | 7.39E-06 | 20 |
| GCST90200893 | rs61928477  | G | C | 0.0397477  | -0.181966  | 2.48E-06 | 22 |
| GCST90200893 | rs72684396  | G | A | 0.0376258  | -0.191387  | 1.67E-06 | 23 |
| GCST90200893 | rs575509    | G | C | 0.153153   | -0.094596  | 9.30E-06 | 20 |
| GCST90200893 | rs8070023   | A | C | 0.0859988  | 0.125346   | 4.50E-06 | 21 |
| GCST90200893 | rs143410078 | G | A | 0.0139706  | 0.291257   | 5.77E-06 | 21 |
| GCST90200893 | rs4692346   | G | A | 0.752172   | 0.0891747  | 6.28E-07 | 25 |
| GCST90200893 | rs9926812   | T | C | 0.454293   | -0.0710243 | 4.18E-06 | 21 |
| GCST90200893 | rs183434279 | G | A | 0.0153401  | -0.295435  | 1.77E-06 | 23 |
| GCST90200893 | rs72812102  | T | C | 0.165836   | -0.0909334 | 7.48E-06 | 20 |
| GCST90200893 | rs147063834 | T | C | 0.0336202  | -0.185966  | 8.07E-06 | 20 |
| GCST90200893 | rs7159478   | A | C | 0.524471   | 0.0719826  | 1.69E-06 | 23 |
| GCST90200893 | rs78311040  | G | A | 0.0108842  | -0.334505  | 4.76E-06 | 21 |
| GCST90200893 | rs72933606  | A | C | 0.0518063  | -0.153763  | 8.97E-06 | 20 |
| GCST90200893 | rs76244048  | A | G | 0.0208614  | -0.236834  | 8.55E-06 | 20 |
| GCST90200893 | rs11012699  | A | G | 0.0058997  | -0.476357  | 1.17E-06 | 24 |
| GCST90200893 | rs10263444  | T | C | 0.0431857  | -0.165887  | 8.44E-06 | 20 |
| GCST90200893 | rs11656146  | T | C | 0.0872642  | -0.12146   | 6.00E-06 | 20 |
| GCST90200893 | rs17396015  | A | G | 0.309436   | -0.0739132 | 6.66E-06 | 20 |

|              |             |   |   |           |            |          |     |
|--------------|-------------|---|---|-----------|------------|----------|-----|
| GCST90200893 | rs151129890 | T | C | 0.0277299 | -0.212656  | 4.06E-06 | 21  |
| GCST90200893 | rs11573587  | A | G | 0.0209795 | 0.250229   | 2.23E-06 | 22  |
| GCST90200893 | rs13017903  | A | G | 0.344077  | 0.0707922  | 9.59E-06 | 20  |
| GCST90200902 | rs201949698 | A | G | 0.170341  | -0.097933  | 4.39E-06 | 21  |
| GCST90200902 | rs12271636  | G | A | 0.0194251 | 0.264136   | 4.62E-06 | 21  |
| GCST90200902 | rs13394956  | T | C | 0.0143776 | -0.298626  | 7.52E-06 | 20  |
| GCST90200902 | rs1597070   | T | C | 0.0801918 | -0.15397   | 1.22E-07 | 28  |
| GCST90200902 | rs2043082   | A | G | 0.34443   | -0.0927979 | 5.07E-08 | 30  |
| GCST90200902 | rs7191595   | C | T | 0.430147  | 0.0863566  | 1.48E-07 | 28  |
| GCST90200902 | rs9838178   | A | G | 0.328131  | 0.0838984  | 1.24E-06 | 24  |
| GCST90200902 | rs2799359   | T | G | 0.0222266 | -0.240427  | 9.46E-06 | 20  |
| GCST90200902 | rs17216588  | T | C | 0.0780759 | 0.18211    | 1.26E-09 | 37  |
| GCST90200902 | rs2077334   | A | C | 0.136884  | 0.119871   | 2.37E-07 | 27  |
| GCST90200902 | rs438811    | T | C | 0.225481  | -0.178794  | 4.86E-21 | 89  |
| GCST90200902 | rs12583306  | C | A | 0.350124  | -0.0757761 | 8.60E-06 | 20  |
| GCST90200902 | rs61899030  | G | T | 0.310992  | -0.0768611 | 9.11E-06 | 20  |
| GCST90200902 | rs1077835   | G | A | 0.219503  | -0.0909591 | 2.90E-06 | 22  |
| GCST90200902 | rs1651059   | G | A | 0.0867996 | -0.166064  | 4.32E-09 | 34  |
| GCST90200902 | rs12425298  | T | C | 0.0252261 | -0.227793  | 8.48E-06 | 20  |
| GCST90200902 | rs12523836  | T | C | 0.617439  | 0.0745789  | 8.29E-06 | 20  |
| GCST90200902 | rs174564    | G | A | 0.336609  | 0.309609   | 2.01E-77 | 347 |
| GCST90200902 | rs4374638   | C | T | 0.631049  | -0.0791439 | 3.16E-06 | 22  |
| GCST90200908 | rs758935    | C | T | 0.855717  | -0.102883  | 6.17E-06 | 20  |
| GCST90200908 | rs964184    | C | G | 0.868132  | 0.124503   | 1.41E-07 | 28  |
| GCST90200908 | rs102275    | C | T | 0.340013  | 0.311885   | 5.85E-79 | 354 |
| GCST90200908 | rs73235331  | A | T | 0.0114844 | -0.339504  | 6.99E-06 | 20  |
| GCST90200908 | rs1651059   | G | A | 0.0867801 | -0.147385  | 1.94E-07 | 27  |
| GCST90200908 | rs143884303 | A | C | 0.0136037 | -0.329277  | 1.88E-06 | 23  |
| GCST90200908 | rs112631962 | T | C | 0.0119958 | -0.3284    | 6.63E-06 | 20  |
| GCST90200908 | rs62059189  | T | C | 0.0966941 | -0.125519  | 3.24E-06 | 22  |
| GCST90200908 | rs139667355 | C | T | 0.0133045 | -0.314276  | 6.26E-06 | 20  |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200908 | rs76245239  | T | C | 0.0090921  | 0.39481    | 2.16E-06 | 22  |
| GCST90200908 | rs483082    | T | G | 0.225421   | -0.182733  | 6.23E-22 | 93  |
| GCST90200908 | rs58542926  | T | C | 0.0737887  | 0.205034   | 2.81E-11 | 44  |
| GCST90200908 | rs4374638   | C | T | 0.631511   | -0.0756609 | 8.68E-06 | 20  |
| GCST90200908 | rs117269638 | C | T | 0.00929928 | -0.38385   | 4.49E-06 | 21  |
| GCST90200908 | rs117420976 | A | G | 0.01351    | 0.308608   | 8.79E-06 | 20  |
| GCST90200908 | rs182764591 | C | G | 0.0117925  | -0.343138  | 4.12E-06 | 21  |
| GCST90200908 | rs2043082   | A | G | 0.344756   | -0.0795405 | 3.08E-06 | 22  |
| GCST90200908 | rs17761184  | T | C | 0.417696   | 0.0743828  | 7.77E-06 | 20  |
| GCST90200908 | rs114395881 | C | T | 0.0322581  | 0.202592   | 7.29E-06 | 20  |
| GCST90200908 | rs12425298  | T | C | 0.025036   | -0.246443  | 1.60E-06 | 23  |
| GCST90200909 | rs72745014  | T | C | 0.184096   | 0.0916018  | 5.63E-06 | 21  |
| GCST90200909 | rs2684829   | G | C | 0.0771628  | -0.132729  | 5.69E-06 | 21  |
| GCST90200909 | rs4792607   | G | C | 0.883686   | -0.129463  | 1.64E-07 | 27  |
| GCST90200909 | rs139074399 | G | A | 0.045776   | -0.169741  | 6.90E-06 | 20  |
| GCST90200909 | rs76474224  | T | G | 0.090111   | 0.123623   | 7.62E-06 | 20  |
| GCST90200909 | rs74697098  | C | G | 0.101683   | 0.136041   | 3.57E-07 | 26  |
| GCST90200909 | rs13228276  | T | G | 0.600388   | -0.0870937 | 5.66E-08 | 29  |
| GCST90200909 | rs13015234  | T | C | 0.289288   | 0.0805517  | 3.48E-06 | 22  |
| GCST90200909 | rs8054745   | G | A | 0.0103198  | 0.350717   | 5.80E-06 | 21  |
| GCST90200909 | rs10827956  | T | C | 0.123553   | -0.110471  | 3.67E-06 | 21  |
| GCST90200909 | rs73174314  | A | G | 0.0301894  | 0.211042   | 3.69E-06 | 21  |
| GCST90200909 | rs6584402   | A | G | 0.248986   | 0.0815377  | 8.81E-06 | 20  |
| GCST90200909 | rs117510770 | T | C | 0.015192   | -0.293829  | 3.83E-06 | 21  |
| GCST90200909 | rs142576313 | A | G | 0.0170215  | -0.267394  | 9.44E-06 | 20  |
| GCST90200909 | rs139206044 | A | G | 0.00951833 | -0.393803  | 8.55E-07 | 24  |
| GCST90200909 | rs1481022   | G | A | 0.0432581  | -0.178517  | 4.07E-06 | 21  |
| GCST90200909 | rs34873323  | T | C | 0.270116   | -0.0802342 | 4.76E-06 | 21  |
| GCST90200909 | rs117182843 | G | A | 0.0673261  | -0.138522  | 8.72E-06 | 20  |
| GCST90200909 | rs839859    | C | T | 0.286686   | -0.0903039 | 2.01E-07 | 27  |
| GCST90200909 | rs140522    | C | T | 0.665447   | 0.171616   | 1.12E-24 | 105 |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200909 | rs1966316   | G | A | 0.20354    | 0.0876658  | 9.54E-06 | 20 |
| GCST90200909 | rs6909158   | C | T | 0.182933   | 0.0925834  | 5.21E-06 | 21 |
| GCST90200909 | rs41502044  | T | G | 0.266808   | -0.0845883 | 1.64E-06 | 23 |
| GCST90200909 | rs2284452   | A | G | 0.541608   | 0.0716835  | 5.72E-06 | 21 |
| GCST90200909 | rs149537347 | A | T | 0.0116963  | 0.342149   | 2.72E-06 | 22 |
| GCST90200909 | rs17580372  | T | C | 0.0159608  | 0.275344   | 9.40E-06 | 20 |
| GCST90200909 | rs35694510  | T | G | 0.0678727  | -0.143891  | 4.74E-06 | 21 |
| GCST90200909 | rs9798544   | C | T | 0.214634   | 0.0912246  | 2.11E-06 | 22 |
| GCST90200909 | rs11647077  | C | T | 0.011619   | 0.331442   | 6.59E-06 | 20 |
| GCST90200938 | rs66853464  | C | T | 0.0227356  | -0.231307  | 6.32E-06 | 20 |
| GCST90200938 | rs61921560  | T | A | 0.0202661  | -0.243903  | 8.07E-06 | 20 |
| GCST90200938 | rs73113815  | T | C | 0.102986   | 0.114323   | 5.32E-06 | 21 |
| GCST90200938 | rs73121385  | C | T | 0.0337542  | -0.20079   | 1.88E-06 | 23 |
| GCST90200938 | rs10207972  | T | A | 0.0144778  | -0.300773  | 2.74E-06 | 22 |
| GCST90200938 | rs74431981  | C | T | 0.00947407 | -0.371907  | 2.04E-06 | 23 |
| GCST90200938 | rs2450252   | T | C | 0.065289   | 0.14551    | 2.90E-06 | 22 |
| GCST90200938 | rs62128848  | T | G | 0.0304359  | -0.224721  | 1.30E-06 | 23 |
| GCST90200938 | rs6124830   | C | T | 0.191077   | 0.149024   | 2.61E-14 | 58 |
| GCST90200938 | rs4941126   | C | G | 0.312431   | 0.0736177  | 8.36E-06 | 20 |
| GCST90200938 | rs7191110   | A | G | 0.344857   | 0.0755204  | 7.01E-06 | 20 |
| GCST90200938 | rs392212    | G | A | 0.857932   | -0.0984476 | 8.41E-06 | 20 |
| GCST90200938 | rs76007926  | C | T | 0.0202112  | -0.255449  | 2.46E-06 | 22 |
| GCST90200938 | rs1828633   | G | A | 0.441246   | 0.0712243  | 5.64E-06 | 21 |
| GCST90200938 | rs568362030 | T | A | 0.0126096  | -0.306652  | 8.18E-06 | 20 |
| GCST90200938 | rs2661610   | T | A | 0.190682   | 0.0908047  | 4.75E-06 | 21 |
| GCST90200938 | rs11638648  | G | A | 0.485307   | 0.0734191  | 1.92E-06 | 23 |
| GCST90200938 | rs138060003 | G | A | 0.00817073 | 0.397268   | 2.38E-06 | 22 |
| GCST90200938 | rs2039684   | C | T | 0.197722   | 0.0881867  | 3.58E-06 | 21 |
| GCST90200938 | rs7645538   | C | T | 0.742575   | -0.0830084 | 2.41E-06 | 22 |
| GCST90200938 | rs117918960 | A | T | 0.00503519 | -0.498017  | 3.23E-06 | 22 |
| GCST90200948 | rs142856816 | T | C | 0.0121816  | 0.432547   | 2.91E-06 | 22 |

|              |             |   |   |            |            |          |    |
|--------------|-------------|---|---|------------|------------|----------|----|
| GCST90200948 | rs2011040   | C | T | 0.172846   | 0.127081   | 4.12E-06 | 21 |
| GCST90200948 | rs35104864  | G | A | 0.856415   | 0.135522   | 6.05E-06 | 20 |
| GCST90200948 | rs2083631   | T | C | 0.613228   | -0.102     | 1.44E-06 | 23 |
| GCST90200948 | rs224945    | T | C | 0.943127   | 0.20248    | 4.95E-06 | 21 |
| GCST90200948 | rs143447157 | T | C | 0.0170968  | 0.359024   | 8.15E-06 | 20 |
| GCST90200948 | rs141856445 | A | G | 0.0115207  | 0.444139   | 3.96E-06 | 21 |
| GCST90200948 | rs117232483 | C | T | 0.0208516  | 0.318275   | 9.30E-06 | 20 |
| GCST90200948 | rs79237419  | G | T | 0.0552614  | -0.214875  | 3.02E-06 | 22 |
| GCST90200948 | rs1998843   | T | C | 0.343901   | -0.0973403 | 7.42E-06 | 20 |
| GCST90200948 | rs2509958   | G | T | 0.960165   | 0.257931   | 4.95E-06 | 21 |
| GCST90200948 | rs4852102   | G | A | 0.322139   | 0.104272   | 2.28E-06 | 22 |
| GCST90200948 | rs79911460  | G | A | 0.0458242  | -0.223532  | 7.60E-06 | 20 |
| GCST90200948 | rs587449    | C | G | 0.0419725  | 0.254451   | 1.10E-06 | 24 |
| GCST90200948 | rs10738651  | C | G | 0.755172   | -0.113326  | 4.66E-06 | 21 |
| GCST90200948 | rs2623702   | C | T | 0.0634624  | 0.194878   | 5.01E-06 | 21 |
| GCST90200948 | rs78335536  | G | T | 0.125753   | 0.140028   | 9.12E-06 | 20 |
| GCST90200948 | rs34908850  | G | A | 0.251226   | 0.107071   | 8.24E-06 | 20 |
| GCST90200948 | rs78633935  | A | T | 0.00683271 | 0.587935   | 2.07E-06 | 23 |
| GCST90200948 | rs74496934  | T | C | 0.0426143  | 0.230765   | 5.64E-06 | 21 |
| GCST90200955 | rs117717775 | T | C | 0.0190026  | -0.370971  | 9.61E-07 | 24 |
| GCST90200955 | rs182137031 | A | C | 0.0120097  | -0.450349  | 2.11E-06 | 22 |
| GCST90200955 | rs10766713  | C | T | 0.668198   | -0.102485  | 9.55E-06 | 20 |
| GCST90200955 | rs118106972 | T | C | 0.00704846 | 0.564517   | 4.10E-06 | 21 |
| GCST90200955 | rs12003375  | G | A | 0.706054   | 0.114077   | 8.12E-07 | 24 |
| GCST90200955 | rs138795521 | A | G | 0.017146   | -0.355529  | 8.32E-06 | 20 |
| GCST90200955 | rs1834709   | A | G | 0.41164    | -0.102148  | 2.75E-06 | 22 |
| GCST90200955 | rs10899251  | G | A | 0.13247    | -0.136259  | 9.04E-06 | 20 |
| GCST90200955 | rs112036394 | C | T | 0.1457     | -0.137918  | 2.38E-06 | 22 |
| GCST90200955 | rs17146662  | G | A | 0.166227   | 0.130078   | 2.65E-06 | 22 |
| GCST90200955 | rs898978    | G | T | 0.485724   | 0.0968473  | 3.44E-06 | 22 |
| GCST90200955 | rs9913005   | T | C | 0.842689   | 0.136204   | 2.61E-06 | 22 |

|              |             |   |   |            |            |          |     |
|--------------|-------------|---|---|------------|------------|----------|-----|
| GCST90200955 | rs147998606 | C | T | 0.0212202  | 0.33456    | 3.52E-06 | 22  |
| GCST90200955 | rs17058444  | A | C | 0.225473   | -0.126999  | 3.15E-07 | 26  |
| GCST90200955 | rs66582641  | C | T | 0.1196     | -0.146813  | 6.51E-06 | 20  |
| GCST90200955 | rs72650873  | G | A | 0.0344751  | -0.271154  | 2.15E-06 | 22  |
| GCST90200955 | rs35540647  | C | G | 0.0434783  | 0.23033    | 6.33E-06 | 20  |
| GCST90200955 | rs66628241  | T | C | 0.0863221  | 0.174366   | 3.32E-06 | 22  |
| GCST90200955 | rs6442990   | T | G | 0.822308   | 0.121824   | 5.43E-06 | 21  |
| GCST90200955 | rs142622373 | T | C | 0.0837569  | -0.163689  | 9.33E-06 | 20  |
| GCST90200955 | rs2322969   | G | A | 0.493289   | -0.0933717 | 8.96E-06 | 20  |
| GCST90200955 | rs1461567   | A | G | 0.27172    | -0.113617  | 1.19E-06 | 24  |
| GCST90200967 | rs10843328  | G | A | 0.453858   | -0.0665612 | 1.90E-06 | 23  |
| GCST90200967 | rs4529048   | A | C | 0.746462   | -0.216857  | 8.59E-43 | 188 |
| GCST90200967 | rs11231845  | A | G | 0.703311   | 0.077429   | 5.27E-07 | 25  |
| GCST90200967 | rs16853945  | T | C | 0.238902   | -0.0746297 | 4.78E-06 | 21  |
| GCST90200967 | rs12485725  | A | G | 0.174598   | -0.0894814 | 1.37E-06 | 23  |
| GCST90200967 | rs6057728   | C | T | 0.315067   | -0.0669241 | 9.03E-06 | 20  |
| GCST90200967 | rs2469511   | G | A | 0.438653   | -0.0667532 | 2.06E-06 | 23  |
| GCST90200967 | rs1414990   | T | C | 0.668019   | 0.0709374  | 1.88E-06 | 23  |
| GCST90200967 | rs150809600 | G | C | 0.00586152 | 0.456599   | 5.00E-07 | 25  |
| GCST90200967 | rs76483991  | G | A | 0.0607522  | -0.135191  | 3.18E-06 | 22  |
| GCST90200967 | rs7306848   | G | C | 0.28644    | 0.0837268  | 7.03E-08 | 29  |
| GCST90200967 | rs8059901   | C | G | 0.00950337 | -0.352176  | 7.81E-07 | 24  |
| GCST90200967 | rs10433994  | G | A | 0.793329   | 0.0788776  | 8.15E-06 | 20  |
| GCST90200967 | rs2231142   | T | G | 0.110786   | -0.107401  | 1.02E-06 | 24  |
| GCST90200967 | rs75607471  | T | C | 0.0220687  | -0.211368  | 8.13E-06 | 20  |
| GCST90200967 | rs6907305   | G | A | 0.813974   | -0.0838839 | 3.20E-06 | 22  |
| GCST90200967 | rs35396136  | T | C | 0.0796514  | -0.112572  | 9.58E-06 | 20  |
| GCST90200967 | rs78112251  | T | C | 0.0586152  | -0.132243  | 8.75E-06 | 20  |
| GCST90200967 | rs8051748   | A | G | 0.263408   | 0.0718488  | 5.82E-06 | 21  |
| GCST90200967 | rs74880448  | A | C | 0.0191599  | -0.250983  | 6.97E-07 | 25  |
| GCST90200967 | rs9857109   | T | C | 0.171232   | 0.0828601  | 7.16E-06 | 20  |

|              |             |   |   |           |            |          |    |
|--------------|-------------|---|---|-----------|------------|----------|----|
| GCST90200967 | rs56242159  | A | C | 0.581258  | -0.0639773 | 5.08E-06 | 21 |
| GCST90200967 | rs72752754  | A | T | 0.0214671 | 0.224113   | 3.13E-06 | 22 |
| GCST90200967 | rs7616869   | G | A | 0.553758  | -0.0654819 | 6.64E-06 | 20 |
| GCST90200967 | rs148785605 | T | A | 0.0564802 | 0.143798   | 2.03E-06 | 23 |
| GCST90200967 | rs9583107   | G | T | 0.18388   | 0.0835381  | 4.07E-06 | 21 |
| GCST90200967 | rs56370068  | A | G | 0.017395  | 0.236632   | 7.38E-06 | 20 |
| GCST90200967 | rs57303110  | A | G | 0.0712454 | -0.124315  | 3.88E-06 | 21 |
| GCST90200967 | rs17790499  | A | T | 0.058194  | -0.14868   | 9.64E-07 | 24 |
| GCST90200967 | rs9472482   | T | G | 0.0562431 | 0.155101   | 2.38E-07 | 27 |
| GCST90200967 | rs73154060  | G | A | 0.0141861 | 0.291978   | 6.48E-07 | 25 |
| GCST90200967 | rs142691305 | T | C | 0.0352692 | 0.176253   | 4.01E-06 | 21 |
| GCST90200979 | rs62005090  | G | T | 0.0154171 | -0.287445  | 4.51E-06 | 21 |
| GCST90200979 | rs328266    | C | G | 0.839674  | 0.0958628  | 5.75E-06 | 21 |
| GCST90200979 | rs2025520   | A | G | 0.751623  | 0.0829163  | 4.32E-06 | 21 |
| GCST90200979 | rs5997788   | T | G | 0.503652  | -0.0714413 | 3.88E-06 | 21 |
| GCST90200979 | rs58578755  | T | G | 0.504792  | 0.0723824  | 2.54E-06 | 22 |
| GCST90200979 | rs4636586   | T | C | 0.232152  | 0.0806149  | 7.32E-06 | 20 |
| GCST90200979 | rs73155110  | T | G | 0.0158438 | -0.308503  | 5.77E-07 | 25 |
| GCST90200979 | rs700105    | G | A | 0.835287  | 0.0955565  | 8.11E-06 | 20 |
| GCST90200979 | rs6498541   | G | A | 0.30713   | -0.101035  | 1.28E-09 | 37 |
| GCST90200979 | rs62422412  | A | G | 0.282324  | -0.0804707 | 2.12E-06 | 22 |
| GCST90200979 | rs34693947  | A | G | 0.0329397 | 0.192155   | 8.17E-06 | 20 |
| GCST90200979 | rs10969273  | A | G | 0.298258  | -0.0792839 | 3.50E-06 | 22 |
| GCST90200979 | rs146577192 | A | G | 0.0506353 | 0.16062    | 5.08E-06 | 21 |
| GCST90200979 | rs74672769  | G | A | 0.0200246 | -0.263746  | 1.43E-06 | 23 |
| GCST90200979 | rs150962574 | G | T | 0.0239551 | 0.227501   | 5.88E-06 | 21 |
| GCST90200979 | rs148782838 | T | C | 0.0144669 | 0.285889   | 7.33E-06 | 20 |
| GCST90200979 | rs17636099  | G | T | 0.269434  | -0.0793993 | 5.34E-06 | 21 |
| GCST90200979 | rs35500370  | G | A | 0.116103  | -0.110273  | 3.70E-06 | 21 |
| GCST90200979 | rs79548389  | T | C | 0.0324675 | -0.195142  | 6.43E-06 | 20 |
| GCST90200979 | rs1461645   | C | G | 0.0655748 | 0.136365   | 9.82E-06 | 20 |

|              |             |   |   |            |            |           |     |
|--------------|-------------|---|---|------------|------------|-----------|-----|
| GCST90200979 | rs78496039  | C | T | 0.261887   | -0.0791653 | 5.04E-06  | 21  |
| GCST90200979 | rs116271755 | A | C | 0.0114668  | 0.314098   | 9.78E-06  | 20  |
| GCST90200979 | rs174564    | G | A | 0.346433   | -0.413649  | 6.94E-158 | 717 |
| GCST90200979 | rs141344299 | G | A | 0.00853075 | -0.367683  | 9.14E-06  | 20  |
| GCST90199749 | rs1260326   | C | T | 0.587798   | 0.106396   | 1.80E-11  | 45  |
| GCST90199749 | rs57241318  | T | C | 0.225801   | -0.0854682 | 5.00E-06  | 21  |
| GCST90199749 | rs715       | C | T | 0.306507   | -0.0791275 | 3.18E-06  | 22  |
| GCST90200794 | rs12928099  | A | C | 0.290469   | -0.103186  | 4.53E-09  | 34  |
| GCST90200794 | rs174564    | G | A | 0.334736   | 0.499809   | 1.00E-200 | 962 |
| GCST90200794 | rs964184    | C | G | 0.869537   | -0.133453  | 1.88E-08  | 32  |
| GCST90200802 | rs1260326   | C | T | 0.587205   | 0.0982938  | 4.01E-10  | 39  |
| GCST90200802 | rs185423687 | T | C | 0.00930431 | 0.364355   | 6.49E-06  | 20  |
| GCST90200802 | rs79888339  | T | C | 0.0143068  | 0.294531   | 7.61E-06  | 20  |

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\**SNP* single nucleotide polymorphism, *EA* effect allele, *OA* other allele, *EAF* effect allele frequency, *P* p-value, *F* F-statistic.