**Table S9.** Gene-wide analysis for genes which show GWAS significant association with AD in the stage 1 IGAP dataset.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Gene Name | Chr | Positions | | N SNPs | Gene-wide  p-value | N SNPs  with p≤0.05 | Best SNP  p-value |
| Start SNP | End SNP |
| *CR1* | 1 | 207,669,473 | 207,815,110 | 251 | 3.5x10-7 | 124 | 7.7x10-15 |
| *BIN1* | 2 | 127,805,607 | 127,864,864 | 220 | 4.8x10-6 | 134 | 3.7x10-16 |
| *HLA-DRB1* | 6 | 32,546,546 | 32,557,562 | 595 | 6.6x10-6 | 307 | 1.6x10-8 |
| *CD2AP* | 6 | 47,445,525 | 47,594,999 | 319 | 8.0x10-6 | 257 | 3.1x10-8 |
| *EPHA1* | 7 | 143,088,205 | 143,105,985 | 39 | 3.9x10-7 | 15 | 3.4x10-11 |
| *PTK2B* | 8 | 27,168,999 | 27,316,903 | 380 | 1.3x10-4 | 188 | 3.3x10-9 |
| *CLU* | 8 | 27,454,451 | 27,472,327 | 35 | 5.1x10-15 | 30 | 9.6x10-17 |
| *MS4A6A* | 11 | 59,939,080 | 59,950,674 | 22 | 3.7x10-10 | 13 | 1.6x10-10 |
| *PICALM* | 11 | 85,668,485 | 85,780,108 | 302 | 1.2x10-8 | 243 | 1.9x10-12 |
| *SORL1* | 11 | 121,322,961 | 121,504,471 | 319 | 2.7x10-5 | 94 | 5.0x10-11 |
| *SLC24A4* | 14 | 92,788,925 | 92,962,596 | 675 | 0.0001 | 242 | 1.5x10-7 |
| *DSG2* | 18 | 29,078,027 | 29,128,814 | 122 | 0.593 | 6 | 4.6x10-8 |
| *ABCA7* | 19 | 1,040,102 | 1,065,571 | 93 | 3.0x10-7 | 60 | 1.7x10-9 |
| *APOE* | 19 | 45,409,039 | 45,412,650 | 5 | <10-200 | 5 | 5.5x10-25 |
| *CD33* | 19 | 51,728,335 | 51,743,274 | 23 | 1.9x10-6 | 11 | 6.5x10-8 |