**Table S1. Association results of meta-analysis for BMI in three Korean cohorts**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Reported SNP** | **CHR** | **Position (BP)a** | **Reported Geneb** | **Risk allele** | **RAF** | **Meta Results** | | **I2** |
| **BMI** | |
| **Beta** | ***P*** |
| rs657452 | 1 | 49124175 | AGBL4 | A | 0.67 | 0.0701 | **6.10E-04** | 63.84 |
| rs12566985 | 1 | 74536509 | FPGT-TNNI3K | G | 0.88 | 0.0818 | **6.19E-03** | 72.58 |
| rs11165643 | 1 | 96458541 | PTBP2 | T | 0.75 | 0.0637 | **3.93E-03** | 27.65 |
| rs11185092 | 1 | 107343656 | NTNG1 | G | 0.18 | 0.1067 | **3.01E-05** | 0 |
| rs860295 | 1 | 155797917 | GON4L | G | 0.21 | 0.0681 | **4.04E-03** | 21.81 |
| rs543874 | 1 | 177920345 | SEC16B | G | 0.25 | 0.2294 | **4.31E-25** | 0 |
| rs823114 | 1 | 205750404 | NUCKS1 | G | 0.5 | 0.0517 | **7.15E-03** | 57.41 |
| rs13021737 | 2 | 632348 | TMEM18 | G | 0.91 | 0.2043 | **1.09E-09** | 0 |
| rs10182181 | 2 | 24927427 | ADCY3 | G | 0.44 | 0.1066 | **3.53E-08** | 0 |
| rs11126666 | 2 | 26705943 | KCNK3 | A | 0.74 | 0.0653 | **2.81E-03** | 39.37 |
| rs4596023 | 2 | 48728544 | LHCGR | G | 0.6 | 0.0605 | **2.13E-03** | 39.6 |
| rs1528435 | 2 | 180686235 | UBE2E3 | T | 0.71 | 0.0774 | **2.49E-04** | 0 |
| rs10460960 | 3 | 42267243 | CCK | A | 0.69 | 0.0937 | **6.65E-06** | 0 |
| rs7613875 | 3 | 49934081 | MON1A | A | 0.16 | 0.0688 | **7.95E-03** | 30.72 |
| rs2240920 | 3 | 52796993 | ITIH3 | T | 0.45 | 0.0632 | **1.12E-03** | 0 |
| rs16851483 | 3 | 141556594 | RASA2 | T | 0.28 | 0.059 | **6.40E-03** | 23.52 |
| rs4686392 | 3 | 185806293 | IGF2BP2 | A | 0.69 | 0.0772 | **2.12E-04** | 0 |
| rs10938397 | 4 | 45180510 | GNPDA2 | G | 0.28 | 0.1134 | **1.38E-07** | 26.24 |
| rs1035491 | 5 | 64666350 | FAM159B | A | 0.76 | 0.0615 | **5.79E-03** | 0 |
| rs329120 | 5 | 134526066 | PHF15 | C | 0.59 | 0.0772 | **7.63E-05** | 0 |
| rs35261542 | 6 | 20675561 | CDKAL1 | C | 0.52 | 0.09 | **3.05E-06** | 0 |
| rs6913361 | 6 | 34211613 | HMGA1 | A | 0.13 | 0.0753 | **5.22E-03** | 0 |
| rs2206277 | 6 | 50830813 | TFAP2B | T | 0.31 | 0.1458 | **2.46E-12** | 8.28 |
| rs3800229 | 6 | 108675760 | FOXO3 | T | 0.78 | 0.0857 | **2.07E-04** | 1.72 |
| rs2185027 | 6 | 153060487 | RGS17 | C | 0.57 | 0.0768 | **7.73E-05** | 0 |
| rs1949804 | 7 | 70303840 | AUTS2 | G | 0.16 | 0.0941 | **3.72E-04** | 0 |
| rs17405819 | 8 | 75894349 | HNF4G | T | 0.57 | 0.0532 | **6.44E-03** | 60.83 |
| rs12680842 | 8 | 94570378 | KIAA1429 | A | 0.49 | 0.0614 | **1.50E-03** | 0 |
| rs3802177 | 8 | 117172786 | SLC30A8 | A | 0.41 | 0.0681 | **5.01E-04** | 0 |
| rs1928295 | 9 | 117616205 | TLR4 | T | 0.57 | 0.0608 | **1.77E-03** | 0 |
| rs2235056 | 9 | 126614956 | LMX1B | C | 0.49 | 0.0825 | **2.06E-05** | 38.45 |
| rs2163188 | 10 | 63554951 | REEP3 | C | 0.38 | 0.0519 | **8.68E-03** | 0 |
| rs1832886 | 10 | 92717782 | HHEX | A | 0.76 | 0.0754 | **9.57E-04** | 62.17 |
| rs17094222 | 10 | 100635683 | HIF1AN | C | 0.38 | 0.0816 | **4.31E-05** | 57.06 |
| rs4409766 | 10 | 102856906 | C10orf32 | C | 0.27 | 0.0978 | **6.05E-06** | 46.26 |
| rs1568079 | 10 | 123492235 | GPR26 | T | 0.65 | 0.0683 | **7.73E-04** | 0 |
| rs10840099 | 11 | 8646133 | TRIM66 | C | 0.37 | 0.0867 | **1.48E-05** | 0 |
| rs3817334 | 11 | 47629441 | MTCH2 | T | 0.32 | 0.0663 | **1.44E-03** | 0 |
| rs506338 | 11 | 64673448 | NRXN2 | C | 0.23 | 0.0858 | **1.76E-04** | 0 |
| rs1048932 | 11 | 115174130 | CADM1 | C | 0.52 | 0.0679 | **4.12E-04** | 14.17 |
| rs10772983 | 12 | 16988648 | LOC728622 | C | 0.29 | 0.0703 | **1.01E-03** | 0 |
| rs80234489 | 12 | 31288245 | FAM60A | A | 0.86 | 0.0936 | **1.07E-03** | 0 |
| rs7138803 | 12 | 49853685 | BCDIN3D | A | 0.27 | 0.0775 | **2.97E-04** | 45.71 |
| rs671 | 12 | 111803962 | ALDH2 | G | 0.83 | 0.1628 | **6.78E-10** | 0 |
| rs2301712 | 12 | 112203573 | C12orf51 | T | 0.39 | 0.0784 | **7.76E-05** | 0 |
| rs75766425 | 14 | 52045193 | NID2 | C | 0.16 | 0.114 | **1.15E-05** | 45.42 |
| rs3783890 | 14 | 93323930 | BTBD7 | T | 0.7 | 0.0763 | **2.87E-04** | 0 |
| rs17303831 | 15 | 61842133 | VPS13C | T | 0.8 | 0.0621 | **9.32E-03** | 10.97 |
| rs4776970 | 15 | 67788548 | MAP2K5 | A | 0.22 | 0.0815 | **5.20E-04** | 75.26 |
| rs4238585 | 16 | 20243775 | GP2 | T | 0.78 | 0.1046 | **5.54E-06** | 78.93 |
| rs4787491 | 16 | 30004016 | INO80E | G | 0.34 | 0.0736 | **3.07E-04** | 0 |
| rs2080454 | 16 | 49028679 | CBLN1 | C | 0.48 | 0.0885 | **4.43E-06** | 64.75 |
| rs1558902 | 16 | 53769662 | FTO | A | 0.13 | 0.2439 | **5.12E-17** | 41.42 |
| rs6504108 | 17 | 48215561 | SKAP1 | C | 0.23 | 0.0656 | **3.69E-03** | 0 |
| rs12602912 | 17 | 67873957 | BPTF | T | 0.65 | 0.073 | **2.68E-04** | 0 |
| rs12940622 | 17 | 80641771 | RPTOR | G | 0.68 | 0.0835 | **5.67E-05** | 66.53 |
| rs6567160 | 18 | 60161902 | MC4R | C | 0.24 | 0.2129 | **2.54E-21** | 0 |
| rs9944545 | 18 | 60291011 | MC4R | T | 0.06 | 0.1046 | **2.13E-03** | 52.14 |
| rs3810291 | 19 | 47065746 | ZC3H4 | A | 0.22 | 0.112 | **1.43E-06** | 0 |
| rs6089584 | 20 | 61989030 | TAF4 | G | 0.3 | 0.1093 | **1.74E-07** | 0 |
| rs2836768 | 21 | 38939569 | ETS2 | G | 0.3 | 0.0868 | **3.10E-05** | 0 |
| rs4820408 | 22 | 40208941 | TNRC6B | T | 0.51 | 0.0567 | **3.24E-03** | 70.99 |

aPositions according to hg38, bGenes are defined as the previously reported. Bold and underline indicates P-value < 0.01.

Risk allele: risk allele in Korean population; CHR: chromosome; RAF: Risk allele frequency; I2: Heterogeneity of each SNPs