## Table S5. Results of the validation analyses

| region | SNP | effect allele | other allele | effect allele freq | n | beta | se(beta) | p |
|---|---|---|---|---|---|---|---|---|
| 11p15.5-p13 locus | rs4150642 | G | C | 0.217 | 2082 | 0.473 | 0.029 | 7.41E-58 |
| | rs7103375 | G | A | 0.215 | 2130 | 0.460 | 0.028 | 2.27E-56 |
| *SAA1* subregion | rs4638289 | A | T | 0.332 | 2091 | 0.292 | 0.025 | 1.61E-30 |
| | rs1993373 | A | G | 0.327 | 1939 | 0.297 | 0.026 | 2.04E-29 |
| | rs2045272 | T | G | 0.581 | 2118 | 0.207 | 0.024 | 4.09E-17 |
| *HPS5/ GTF2H1* subregion | rs4353250 | T | C | 0.352 | 2125 | 0.345 | 0.025 | 5.82E-42 |
| | rs9988866 | T | A | 0.359 | 2125 | 0.355 | 0.025 | 6.62E-45 |
| | rs1520884 | T | C | 0.356 | 2034 | 0.318 | 0.024 | 9.14E-38 |
| | rs4150655 | A | T | 0.323 | 2123 | 0.343 | 0.025 | 1.52E-41 |
| | rs4757637 | C | A | 0.406 | 2109 | 0.286 | 0.025 | 1.48E-29 |
| | rs4150581 | A | G | 0.486 | 2072 | 0.250 | 0.024 | 9.31E-25 |
| | rs11024603 | G | A | 0.828 | 2127 | 0.058 | 0.031 | 5.74E-02 |
| *LDHA/LDHC* subregion | rs2896526 | G | A | 0.187 | 2097 | 0.216 | 0.031 | 8.18E-12 |
| | rs2056781 | T | C | 0.170 | 1942 | 0.157 | 0.032 | 1.17E-06 |
| | rs12289603 | C | T | 0.120 | 2131 | 0.219 | 0.034 | 1.69E-10 |
| | rs3740713 | G | T | 0.109 | 2117 | 0.188 | 0.036 | 1.67E-07 |
| | rs35593189 | A | G | 0.116 | 2113 | 0.213 | 0.035 | 1.11E-09 |
| 1p31 locus (*LEPR*) | rs12753193 | A | G | 0.606 | 2127 | 0.085 | 0.025 | 8.60E-04 |
| | rs7524581 | C | T | 0.624 | 2123 | 0.080 | 0.026 | 1.85E-03 |
| | rs2211651 | G | T | 0.591 | 2079 | 0.069 | 0.025 | 6.89E-03 |
| | rs2889195 | C | T | 0.603 | 2116 | 0.075 | 0.025 | 2.94E-03 |
| | rs1892534 | G | A | 0.627 | 2090 | 0.070 | 0.025 | 5.39E-03 |
| | rs12022410 | A | G | 0.410 | 2089 | 0.072 | 0.026 | 5.32E-03 |
| | rs17407727 | A | C | 0.288 | 2085 | 0.067 | 0.027 | 1.55E-02 |
| | rs17416194 | A | G | 0.278 | 2063 | 0.055 | 0.027 | 4.20E-02 |
| 11p14 locus (*SERGEF)males* | rs493767 | C | G | 0.349 | 1049 | 0.091 | 0.035 | 8.50E-03 |
| | rs550659 | G | A | 0.373 | 1041 | 0.084 | 0.035 | 1.65E-02 |