|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Supplement 1. List of all SNPs assessed | | |  |  |  |  |  |  |  |  |
|  |  | **Chromosome** |  | **Major/Minor** | **OR (95% CL)** | | **MAF** | | **FDR HWE P** | |
| **Gene** | **Alias** | **Location** | **dbSNP ID** | **Allele** | **Heterozygous** | **Homozygous Var** | **NHW** | **HISP/NA** | **NHW** | **HISP/NA** |
| *ACVR1* | ACTRI, ACVR1A, ACVRLK2, ALK2, FOP, SKR1, TSRI | 2q23-q24 | rs10497191 | C/T | 1.08 (0.97, 1.20) | 1.19 (0.87, 1.64) | 0.13 | 0.14 | 0.98 | 0.98 |
|  |  |  | rs10497192 | T/C | 1.04 (0.94, 1.14) | 1.12 (0.94, 1.34) | 0.26 | 0.27 | 1.00 | 0.94 |
|  |  |  | rs10497193 | A/G | 1.06 (0.96, 1.18) | 1.06 (0.79, 1.42) | 0.17 | 0.14 | 1.00 | 0.59 |
|  |  |  | rs10933443 | T/C | 1.01 (0.92, 1.11) | 1.08 (0.90, 1.31) | 0.25 | 0.25 | 0.96 | 0.64 |
|  |  |  | rs1146035 | G/T | 1.08 (0.97, 1.20) | 1.21 (0.89, 1.64) | 0.18 | 0.13 | 0.96 | 0.74 |
|  |  |  | rs1220134 | T/A | 0.99 (0.90, 1.09) | 1.06 (0.87, 1.29) | 0.29 | 0.20 | 0.96 | 0.81 |
|  |  |  | rs17182166 | G/T | 1.01 (0.90, 1.13) | 1.43 (0.99, 2.08) | 0.17 | 0.07 | 0.86 | 0.68 |
|  |  |  | rs17798043 | C/T | 1.02 (0.87, 1.18) | 0.61 (0.28, 1.30) | 0.08 | 0.04 | 0.97 | 0.00 |
|  |  |  | rs2033962 | G/T | 1.09 (0.98, 1.21) | 1.18 (0.87, 1.60) | 0.17 | 0.14 | 0.96 | 0.68 |
|  |  |  | rs2165436 | C/T | 1.00 (0.90, 1.12) | 1.05 (0.77, 1.43) | 0.15 | 0.14 | 0.96 | 0.76 |
|  |  |  | rs2883605 | G/T | 1.01 (0.87, 1.16) | 1.04 (0.54, 1.99) | 0.09 | 0.05 | 0.96 | 0.87 |
|  |  |  | rs4233672 | G/A | 1.10 (1.00, 1.22) | 1.03 (0.79, 1.34) | 0.17 | 0.18 | 0.96 | 0.92 |
|  |  |  | rs4380178 | G/A | 1.12 (1.00, 1.24) | 1.19 (0.85, 1.67) | 0.14 | 0.13 | 1.00 | 0.63 |
|  |  |  | rs4664901 | T/C | 1.00 (0.91, 1.10) | 1.10 (0.90, 1.36) | 0.23 | 0.22 | 0.96 | 0.97 |
|  |  |  | rs6437117 | A/T | 1.02 (0.92, 1.14) | 1.28 (0.89, 1.84) | 0.15 | 0.12 | 0.89 | 0.49 |
|  |  |  | rs920522 | T/C | 1.13 (1.00, 1.29) | 1.07 (0.61, 1.86) | 0.07 | 0.08 | 0.96 | 0.78 |
| *ACVR2A* | ACTRII, ACVR2 | 2q22.3 | rs1014064 | A/G | 0.94 (0.85, 1.03) | 0.97 (0.84, 1.11) | 0.31 | 0.44 | 0.96 | 0.95 |
|  |  |  | rs10497025 | C/G | 1.00 (0.90, 1.10) | 1.03 (0.83, 1.27) | 0.25 | 0.20 | 0.96 | 0.57 |
|  |  |  | rs1424941 | G/A | 0.94 (0.85, 1.05) | 1.09 (0.81, 1.48) | 0.21 | 0.10 | 0.98 | 0.81 |
|  |  |  | rs2161983 | C/T | 0.93 (0.84, 1.03) | 0.97 (0.84, 1.12) | 0.31 | 0.44 | 0.96 | 0.81 |
|  |  |  | rs3768687 | G/A | 0.93 (0.84, 1.03) | 0.98 (0.85, 1.13) | 0.31 | 0.44 | 0.96 | 0.83 |
|  |  |  | rs3768688 | C/T | 0.95 (0.86, 1.05) | 1.03 (0.90, 1.18) | 0.42 | 0.40 | 0.62 | 0.59 |
| *ACVR2B* | ACTRIIB, ActR-IIB, MGC116908 | 3p22 | rs2276541 | A/G | 1.02 (0.92, 1.13) | 1.02 (0.89, 1.16) | 0.38 | 0.49 | 0.96 | 0.84 |
|  |  |  | rs503327 | G/A | 0.92 (0.81, 1.06) | 0.59 (0.33, 1.06) | 0.11 | 0.05 | 0.91 | 0.94 |
|  |  |  | rs928813 | G/T | 1.10 (0.99, 1.23) | 1.05 (0.92, 1.21) | 0.57 | 0.34 | 0.96 | 0.20 |
| *ACVRL1* | ACVRLK1, ALK-1, ALK1, HHT, HHT2, ORW2, SKR3, TSR-I | 12q11-q14 | rs11169953 | C/T | 0.92 (0.83, 1.01) | 0.89 (0.75, 1.06) | 0.32 | 0.29 | 0.98 | 0.59 |
|  |  |  | rs2641534 | C/T | 0.91 (0.82, 1.02) | 1.14 (0.79, 1.63) | 0.12 | 0.14 | 0.97 | 0.27 |
|  |  |  | rs706819 | G/A | 0.91 (0.82, 1.01) | 0.98 (0.86, 1.13) | 0.26 | 0.50 | 1.00 | 0.86 |
|  |  |  | rs7956340 | T/G | 0.93 (0.84, 1.04) | 0.84 (0.66, 1.09) | 0.08 | 0.24 | 0.96 | 0.68 |
| *BMP1* | FLJ44432, PCOLC, PCP, TLD | 8p21 | rs11775186 | T/G | 1.04 (0.91, 1.19) | 0.79 (0.38, 1.62) | 0.10 | 0.05 | 0.96 | 0.23 |
|  |  |  | rs12114940 | T/G | 1.07 (0.96, 1.18) | 1.10 (0.97, 1.26) | 0.41 | 0.48 | 0.96 | 0.88 |
|  |  |  | rs13257482 | G/A | 1.11 (1.01, 1.22) | 0.82 (0.67, 1.01) | 0.22 | 0.24 | 0.98 | 0.06 |
|  |  |  | rs3857979 | C/T | 0.89 (0.80, 0.99) | 0.93 (0.81, 1.06) | 0.53 | 0.40 | 0.89 | 0.30 |
|  |  |  | rs3924229 | T/C | 1.02 (0.90, 1.15) | 0.96 (0.61, 1.53) | 0.11 | 0.07 | 0.91 | 0.75 |
|  |  |  | rs3924231 | T/C | 1.06 (0.96, 1.18) | 0.82 (0.63, 1.08) | 0.17 | 0.17 | 0.86 | 0.43 |
|  |  |  | rs4075478 | T/C | 0.96 (0.86, 1.07) | 1.08 (0.95, 1.23) | 0.36 | 0.54 | 0.62 | 0.52 |
|  |  |  | rs4872360 | T/C | 1.00 (0.91, 1.10) | 0.93 (0.77, 1.13) | 0.27 | 0.23 | 0.96 | 0.91 |
|  |  |  | rs7592 | G/A | 0.98 (0.89, 1.08) | 0.98 (0.83, 1.15) | 0.33 | 0.29 | 0.96 | 0.59 |
|  |  |  | rs7812993 | A/G | 1.00 (0.91, 1.10) | 1.05 (0.84, 1.31) | 0.22 | 0.20 | 0.96 | 0.63 |
| *BMP2* | BMP2A | 20p12 | rs1005464 | G/A | 1.03 (0.94, 1.14) | 1.03 (0.83, 1.26) | 0.23 | 0.22 | 1.00 | 0.61 |
|  |  |  | rs15705 | A/C | 1.07 (0.97, 1.19) | 1.01 (0.79, 1.29) | 0.23 | 0.14 | 0.96 | 0.27 |
|  |  |  | rs1979855 | T/C | 0.97 (0.87, 1.09) | 0.93 (0.68, 1.29) | 0.18 | 0.10 | 0.89 | 0.63 |
|  |  |  | rs235770 | C/T | 1.01 (0.92, 1.11) | 1.01 (0.87, 1.17) | 0.36 | 0.31 | 0.96 | 0.95 |
|  |  |  | rs3178250 | T/C | 1.04 (0.94, 1.16) | 0.91 (0.69, 1.19) | 0.21 | 0.13 | 0.96 | 0.45 |
|  |  |  | rs7270163 | A/G | 0.94 (0.85, 1.05) | 0.88 (0.64, 1.20) | 0.11 | 0.17 | 0.99 | 0.85 |
| *BMP4* | BMP2B, BMP2B1, ZYME | 14q22-q23 | rs17563 | T/C | 1.22 (1.09, 1.36) | 1.07 (0.93, 1.23) | 0.56 | 0.31 | 0.86 | 0.06 |
|  |  |  | rs2761887 | A/C | 1.06 (0.96, 1.18) | 1.11 (0.97, 1.26) | 0.44 | 0.43 | 0.96 | 0.69 |
|  |  |  | rs4898820 | T/G | 1.02 (0.91, 1.13) | 0.96 (0.84, 1.09) | 0.47 | 0.49 | 0.96 | 0.81 |
|  |  |  | rs762642 | T/G | 0.99 (0.90, 1.10) | 0.92 (0.81, 1.06) | 0.41 | 0.42 | 0.98 | 0.76 |
| *BMP6* | VGR, VGR1 | 6p24-p23 | rs10498671 | T/C | 0.89 (0.80, 0.98) | 0.88 (0.68, 1.15) | 0.18 | 0.17 | 0.97 | 0.69 |
|  |  |  | rs1107495 | A/G | 0.99 (0.89, 1.09) | 0.84 (0.72, 0.98) | 0.19 | 0.43 | 0.98 | 0.00 |
|  |  |  | rs11243204 | A/G | 0.95 (0.86, 1.05) | 0.93 (0.75, 1.14) | 0.23 | 0.23 | 0.81 | 0.78 |
|  |  |  | rs11759532 | C/A | 0.95 (0.86, 1.06) | 0.91 (0.80, 1.04) | 0.40 | 0.51 | 1.00 | 0.43 |
|  |  |  | rs11964227 | G/A | 1.01 (0.91, 1.11) | 1.09 (0.94, 1.27) | 0.43 | 0.29 | 0.96 | 0.73 |
|  |  |  | rs12215656 | G/A | 1.11 (0.98, 1.25) | 1.30 (0.84, 2.01) | 0.15 | 0.05 | 0.93 | 0.68 |
|  |  |  | rs1225929 | A/T | 1.13 (1.01, 1.27) | 1.17 (1.02, 1.34) | 0.61 | 0.33 | 0.96 | 0.09 |
|  |  |  | rs13196371 | G/C | 0.99 (0.89, 1.09) | 0.92 (0.72, 1.17) | 0.16 | 0.21 | 0.96 | 0.59 |
|  |  |  | rs199205 | C/G | 0.97 (0.88, 1.07) | 1.06 (0.84, 1.34) | 0.20 | 0.19 | 0.96 | 0.58 |
|  |  |  | rs2068361 | G/A | 0.96 (0.87, 1.06) | 1.04 (0.89, 1.22) | 0.25 | 0.36 | 0.97 | 0.62 |
|  |  |  | rs2326994 | A/G | 1.04 (0.94, 1.15) | 1.06 (0.85, 1.32) | 0.29 | 0.14 | 0.98 | 0.07 |
|  |  |  | rs267190 | T/G | 1.10 (0.99, 1.23) | 1.09 (0.96, 1.25) | 0.58 | 0.35 | 1.00 | 0.02 |
|  |  |  | rs267204 | A/G | 1.00 (0.90, 1.11) | 0.88 (0.68, 1.15) | 0.22 | 0.13 | 0.96 | 0.40 |
|  |  |  | rs267205 | A/G | 1.03 (0.92, 1.14) | 0.90 (0.78, 1.03) | 0.25 | 0.53 | 0.86 | 0.06 |
|  |  |  | rs267806 | C/T | 0.97 (0.87, 1.08) | 0.88 (0.76, 1.01) | 0.28 | 0.58 | 0.97 | 0.01 |
|  |  |  | rs270398 | C/A | 1.07 (0.97, 1.18) | 0.98 (0.76, 1.26) | 0.19 | 0.19 | 0.96 | 0.96 |
|  |  |  | rs270413 | T/C | 1.07 (0.96, 1.19) | 1.03 (0.90, 1.18) | 0.50 | 0.38 | 0.96 | 0.77 |
|  |  |  | rs270417 | T/C | 1.08 (0.98, 1.19) | 1.19 (0.97, 1.45) | 0.28 | 0.18 | 0.96 | 0.02 |
|  |  |  | rs3812163 | T/A | 1.04 (0.94, 1.15) | 1.06 (0.91, 1.23) | 0.46 | 0.26 | 0.98 | 0.61 |
|  |  |  | rs6910759 | A/G | 1.01 (0.91, 1.12) | 1.12 (0.96, 1.30) | 0.46 | 0.25 | 0.96 | 0.71 |
|  |  |  | rs911749 | G/A | 0.96 (0.87, 1.06) | 0.80 (0.67, 0.95) | 0.23 | 0.33 | 1.00 | 0.01 |
|  |  |  | rs9505276 | A/G | 0.95 (0.86, 1.05) | 0.88 (0.67, 1.15) | 0.18 | 0.19 | 0.52 | 0.68 |
|  |  |  | rs9505293 | G/T | 0.96 (0.86, 1.08) | 0.82 (0.55, 1.22) | 0.12 | 0.13 | 0.82 | 0.74 |
| *BMP7* | OP-1 | 20q13 | rs12438 | A/G | 1.05 (0.94, 1.16) | 0.96 (0.85, 1.10) | 0.51 | 0.41 | 0.96 | 0.64 |
|  |  |  | rs12481628 | A/G | 1.01 (0.91, 1.12) | 1.09 (0.96, 1.25) | 0.43 | 0.43 | 0.86 | 0.57 |
|  |  |  | rs13037653 | T/C | 1.15 (0.98, 1.35) | 0.88 (0.41, 1.93) | 0.07 | 0.03 | 0.82 | 0.92 |
|  |  |  | rs1475000 | A/G | 1.04 (0.94, 1.15) | 1.08 (0.94, 1.23) | 0.41 | 0.40 | 0.96 | 0.48 |
|  |  |  | rs162315 | G/A | 1.05 (0.95, 1.16) | 1.05 (0.89, 1.24) | 0.22 | 0.33 | 0.86 | 0.78 |
|  |  |  | rs162317 | G/A | 1.04 (0.94, 1.15) | 1.06 (0.92, 1.21) | 0.41 | 0.40 | 0.96 | 0.59 |
|  |  |  | rs172983 | G/A | 0.99 (0.89, 1.10) | 1.05 (0.83, 1.33) | 0.10 | 0.25 | 0.89 | 0.82 |
|  |  |  | rs17404303 | C/T | 0.94 (0.85, 1.03) | 0.93 (0.81, 1.08) | 0.43 | 0.29 | 0.96 | 0.63 |
|  |  |  | rs17480735 | G/A | 1.08 (0.93, 1.24) | 0.82 (0.40, 1.66) | 0.08 | 0.04 | 0.96 | 0.90 |
|  |  |  | rs2180780 | C/G | 1.02 (0.92, 1.13) | 1.05 (0.92, 1.20) | 0.44 | 0.42 | 0.96 | 0.78 |
|  |  |  | rs3787380 | T/C | 1.01 (0.91, 1.13) | 0.98 (0.86, 1.11) | 0.39 | 0.52 | 1.00 | 0.29 |
|  |  |  | rs3787382 | C/T | 1.00 (0.91, 1.10) | 1.06 (0.85, 1.31) | 0.19 | 0.23 | 0.96 | 0.83 |
|  |  |  | rs4811822 | T/C | 1.01 (0.90, 1.12) | 1.01 (0.89, 1.15) | 0.50 | 0.46 | 0.86 | 0.26 |
|  |  |  | rs6014949 | G/A | 1.04 (0.94, 1.16) | 0.99 (0.87, 1.13) | 0.51 | 0.42 | 0.96 | 0.60 |
|  |  |  | rs6014967 | G/A | 1.02 (0.93, 1.13) | 1.02 (0.85, 1.21) | 0.21 | 0.31 | 0.96 | 0.95 |
|  |  |  | rs6025446 | A/G | 1.07 (0.96, 1.19) | 0.91 (0.80, 1.04) | 0.41 | 0.51 | 0.96 | 0.01 |
|  |  |  | rs6025468 | A/G | 0.95 (0.86, 1.05) | 0.76 (0.59, 0.97) | 0.20 | 0.20 | 0.86 | 0.38 |
|  |  |  | rs6064508 | T/C | 1.02 (0.92, 1.12) | 0.94 (0.80, 1.10) | 0.36 | 0.30 | 0.98 | 0.62 |
|  |  |  | rs6070036 | G/T | 1.07 (0.94, 1.22) | 0.93 (0.57, 1.53) | 0.11 | 0.06 | 0.68 | 0.71 |
|  |  |  | rs6123674 | A/G | 1.06 (0.96, 1.17) | 0.92 (0.80, 1.06) | 0.41 | 0.35 | 0.91 | 0.38 |
|  |  |  | rs6127973 | G/A | 1.00 (0.90, 1.12) | 1.18 (0.87, 1.61) | 0.13 | 0.15 | 0.97 | 0.98 |
|  |  |  | rs6127978 | A/G | 0.98 (0.89, 1.09) | 0.99 (0.81, 1.22) | 0.14 | 0.28 | 0.62 | 0.51 |
|  |  |  | rs6127983 | T/C | 0.94 (0.85, 1.04) | 0.87 (0.76, 1.00) | 0.34 | 0.48 | 0.96 | 0.52 |
|  |  |  | rs7273197 | C/T | 0.92 (0.84, 1.02) | 0.86 (0.72, 1.03) | 0.33 | 0.24 | 0.96 | 0.89 |
| *BMPR1A* | ACVRLK3, ALK3, CD292 | 10q22.3 | rs10887668 | A/C | 1.00 (0.88, 1.13) | 0.84 (0.53, 1.32) | 0.11 | 0.08 | 0.86 | 0.68 |
|  |  |  | rs12415784 | T/C | 1.01 (0.92, 1.12) | 1.01 (0.83, 1.23) | 0.16 | 0.28 | 1.00 | 0.35 |
|  |  |  | rs12765929 | G/T | 1.06 (0.96, 1.16) | 1.04 (0.89, 1.21) | 0.27 | 0.37 | 0.96 | 0.46 |
|  |  |  | rs2168730 | A/G | 0.94 (0.85, 1.03) | 1.06 (0.90, 1.25) | 0.24 | 0.35 | 0.96 | 0.57 |
|  |  |  | rs2883420 | T/C | 0.96 (0.86, 1.06) | 1.04 (0.91, 1.19) | 0.38 | 0.45 | 0.96 | 0.69 |
|  |  |  | rs4934275 | T/C | 0.99 (0.90, 1.10) | 1.06 (0.87, 1.29) | 0.13 | 0.30 | 0.96 | 0.92 |
|  |  |  | rs6586034 | T/G | 1.00 (0.90, 1.11) | 1.05 (0.92, 1.20) | 0.42 | 0.49 | 0.96 | 0.71 |
|  |  |  | rs7088641 | T/C | 1.00 (0.91, 1.10) | 1.03 (0.89, 1.20) | 0.30 | 0.37 | 0.97 | 0.74 |
|  |  |  | rs7895217 | T/A | 0.91 (0.82, 1.00) | 1.03 (0.90, 1.19) | 0.36 | 0.43 | 0.96 | 0.50 |
| *BMPR1B* | ALK-6, ALK6, CDw293 | 4q22-q24 | rs10049681 | T/C | 1.04 (0.94, 1.16) | 1.10 (0.96, 1.26) | 0.27 | 0.53 | 0.96 | 0.71 |
|  |  |  | rs12508087 | T/A | 0.96 (0.87, 1.06) | 0.86 (0.68, 1.09) | 0.24 | 0.19 | 0.96 | 0.98 |
|  |  |  | rs13134042 | G/A | 0.95 (0.86, 1.04) | 1.04 (0.85, 1.27) | 0.21 | 0.25 | 0.93 | 0.85 |
|  |  |  | rs17022671 | G/A | 1.03 (0.93, 1.14) | 1.03 (0.81, 1.31) | 0.25 | 0.15 | 0.96 | 0.57 |
|  |  |  | rs17616243 | C/T | 1.08 (0.98, 1.20) | 0.91 (0.74, 1.11) | 0.15 | 0.28 | 0.93 | 0.06 |
|  |  |  | rs1863652 | C/T | 1.03 (0.93, 1.13) | 1.15 (1.00, 1.32) | 0.34 | 0.40 | 0.96 | 0.59 |
|  |  |  | rs2120834 | G/C | 0.99 (0.90, 1.09) | 1.01 (0.87, 1.19) | 0.37 | 0.28 | 0.98 | 0.19 |
|  |  |  | rs2214395 | A/G | 1.02 (0.92, 1.14) | 1.20 (0.86, 1.66) | 0.16 | 0.11 | 0.96 | 0.96 |
|  |  |  | rs2719176 | C/G | 1.10 (0.99, 1.21) | 0.98 (0.85, 1.12) | 0.39 | 0.43 | 0.93 | 0.83 |
|  |  |  | rs3796442 | C/A | 0.98 (0.88, 1.09) | 0.94 (0.70, 1.27) | 0.09 | 0.18 | 0.66 | 0.44 |
|  |  |  | rs3821968 | C/T | 1.07 (0.96, 1.18) | 1.05 (0.85, 1.29) | 0.11 | 0.28 | 1.00 | 0.10 |
|  |  |  | rs4145993 | C/T | 0.95 (0.85, 1.05) | 0.94 (0.72, 1.22) | 0.20 | 0.15 | 0.96 | 0.10 |
|  |  |  | rs4490463 | A/G | 0.99 (0.89, 1.09) | 0.82 (0.71, 0.95) | 0.42 | 0.30 | 0.93 | 0.12 |
|  |  |  | rs6849425 | C/T | 0.94 (0.85, 1.04) | 0.87 (0.69, 1.11) | 0.22 | 0.19 | 0.97 | 0.72 |
|  |  |  | rs7661049 | G/A | 1.07 (0.96, 1.19) | 1.02 (0.89, 1.16) | 0.53 | 0.39 | 0.96 | 0.38 |
|  |  |  | rs7694043 | C/T | 0.98 (0.89, 1.08) | 0.99 (0.84, 1.17) | 0.36 | 0.25 | 0.96 | 0.89 |
|  |  |  | rs7698964 | G/A | 1.02 (0.91, 1.16) | 1.10 (0.64, 1.90) | 0.12 | 0.07 | 0.97 | 0.45 |
|  |  |  | rs9307147 | A/G | 0.99 (0.89, 1.09) | 0.95 (0.83, 1.10) | 0.45 | 0.29 | 0.89 | 0.36 |
| *BMPR2* | BMPR-II, BMPR3, BMR2, BRK-3, PPH1, T-ALK, TRG10 | 2q33-q34 | rs1199496 | A/T | 1.00 (0.91, 1.11) | 0.92 (0.79, 1.08) | 0.29 | 0.35 | 0.96 | 0.67 |
|  |  |  | rs12477602 | G/A | 1.04 (0.94, 1.16) | 1.01 (0.75, 1.37) | 0.13 | 0.15 | 0.96 | 0.29 |
|  |  |  | rs12621870 | T/C | 1.00 (0.91, 1.11) | 0.95 (0.77, 1.17) | 0.23 | 0.21 | 0.86 | 0.72 |
|  |  |  | rs17199235 | A/G | 0.91 (0.80, 1.04) | 0.83 (0.52, 1.31) | 0.12 | 0.06 | 0.73 | 0.88 |
|  |  |  | rs1980153 | A/T | 0.88 (0.79, 0.99) | 1.04 (0.76, 1.43) | 0.11 | 0.17 | 0.96 | 0.56 |
|  |  |  | rs4303700 | G/A | 1.02 (0.92, 1.13) | 0.92 (0.72, 1.19) | 0.24 | 0.13 | 0.99 | 0.53 |
|  |  |  | rs4675278 | G/A | 0.98 (0.89, 1.08) | 1.06 (0.91, 1.24) | 0.27 | 0.34 | 0.98 | 0.85 |
|  |  |  | rs6751210 | A/G | 1.05 (0.95, 1.17) | 1.06 (0.93, 1.20) | 0.49 | 0.44 | 0.96 | 0.81 |
| *GDF10* | BMP-3b, BMP3B | 10q11.22 | rs11598444 | G/A | 1.01 (0.90, 1.14) | 1.25 (0.80, 1.95) | 0.14 | 0.07 | 0.68 | 0.74 |
|  |  |  | rs1902724 | A/C | 0.98 (0.89, 1.07) | 1.12 (0.96, 1.32) | 0.32 | 0.31 | 0.78 | 0.75 |
|  |  |  | rs1902725 | G/A | 1.02 (0.93, 1.13) | 1.15 (0.88, 1.51) | 0.21 | 0.15 | 0.68 | 0.81 |
|  |  |  | rs2853838 | C/A | 1.00 (0.90, 1.10) | 1.09 (0.86, 1.36) | 0.20 | 0.21 | 0.93 | 0.92 |
|  |  |  | rs7093975 | C/T | 0.97 (0.88, 1.07) | 1.23 (1.01, 1.49) | 0.27 | 0.23 | 0.62 | 0.82 |
|  |  |  | rs762454 | A/G | 1.13 (1.02, 1.24) | 1.10 (0.92, 1.31) | 0.32 | 0.23 | 0.96 | 0.08 |
| *MSTN* | GDF8 | 2q32.2 | rs3791783 | T/C | 1.01 (0.92, 1.12) | 1.03 (0.83, 1.28) | 0.21 | 0.23 | 0.86 | 0.94 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplement 2. Number of independent SNPs from spectral decomposition | | | | | |
|  |  | Native American Ancestry | | |  |
|  | Overall | 0 - 28% | 29 - 70% | 71 - 100% |  |
| *ACVR1* | 10 | 10 | 10 | 10 |  |
| *ACVR2A* | 3 | 3 | 3 | 3 |  |
| *ACVR2B* | 2.4943 | 2 | 2.5564 | 2.7154 |  |
| *ACVRL1* | 3.6534 | 3.5679 | 3.6396 | 3 |  |
| *BMP1* | 8 | 8.0363 | 8 | 8 |  |
| *BMP2* | 5 | 4 | 5 | 5 |  |
| *BMP4* | 2.8435 | 2.6654 | 2.9103 | 2.9633 |  |
| *BMP6* | 18.0397 | 18 | 18.0396 | 17.0512 |  |
| *BMP7* | 14.2678 | 14.3455 | 13.2063 | 13.1044 |  |
| *BMPR1A* | 5 | 6 | 5 | 4 |  |
| *BMPR1B* | 14 | 14 | 13 | 13 |  |
| *BMPR2* | 6 | 6 | 6 | 6 |  |
| *GDF10* | 4 | 4 | 4 | 4 |  |
| *MSTN* | 1 | 1 | 1 | 1 |  |