

Supplementary Table 2. Haplotype association of 12 SNPs in HMGN3 gene with spine bone size

Locus	Haplotype	Freq	β	P value	
Initial Discovery					
	HAPL-1	GGATAATCCCGG	0.89	-1.33	6.8E-05
	HAPL-2	AACCCGCGTTAA	0.09	1.57	9.3E-06
Replication study					
	HAPL-1	GGATAATCCCGG	0.79	-0.12	0.61
	HAPL-2	AACCCGCGTTAA	0.08	0.16	0.66
	HAPL-3	GGATAATCCCAA	0.02	-0.73	0.25
	HAPL-4	GGATAATCCCAG	0.05	-0.29	0.52
	HAPL-5	GGATAATCCCGA	0.02	-0.31	0.68
	HAPL-6	AACCCGTGTTAA	0.02	1.59	1.37E-02

1. SNP order in the haplotype: rs17743190|rs3857454|rs3907327|rs17799762

|rs17799805|rs1385530|rs17799462|rs3857453|rs3857449|rs10484943|rs196670

|rs16890720.

2. P value: Haplotype-specific association analysis P value, which was calculated in a quantitative trait association model with the command “—hap-assoc” in the PLINK.