

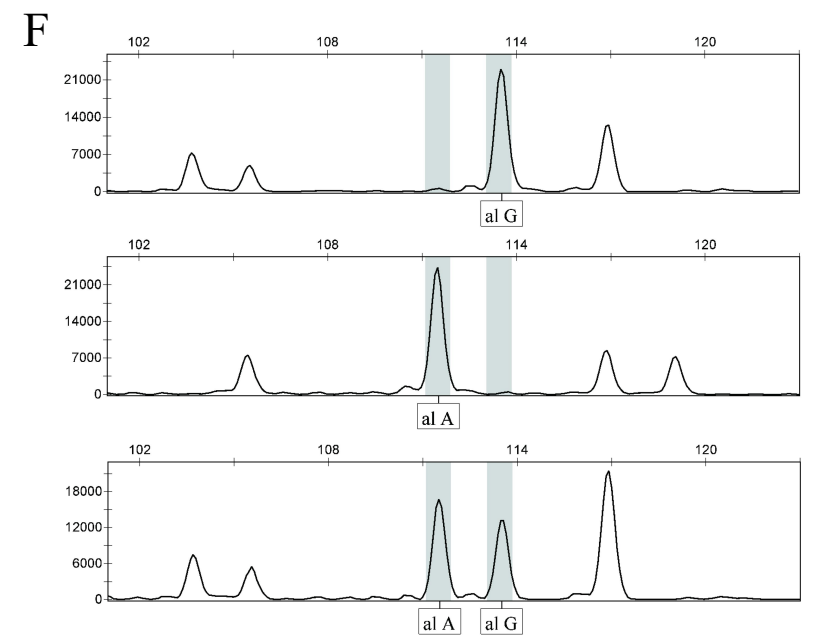
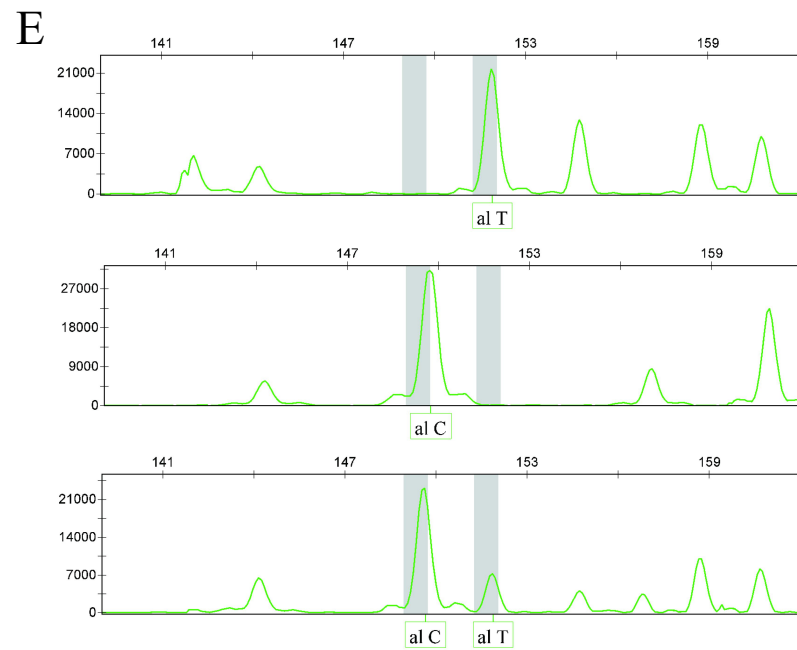
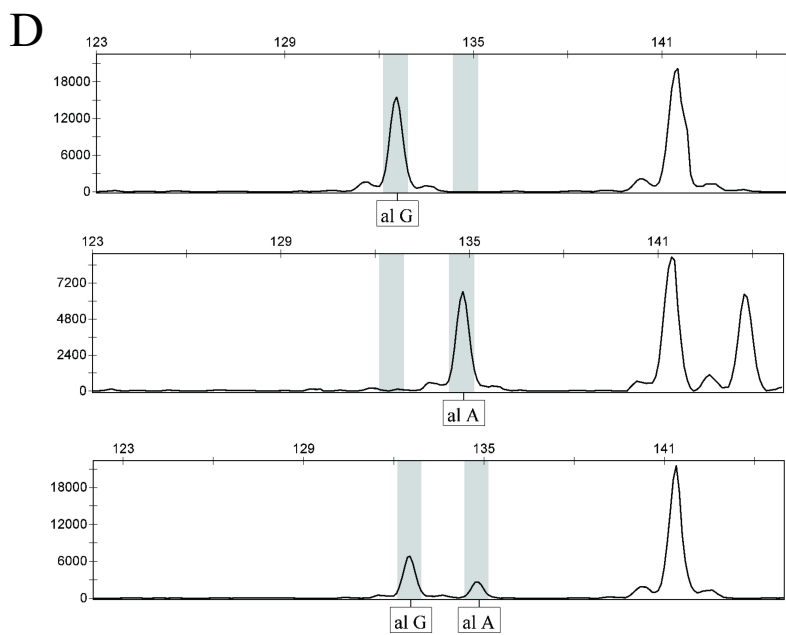
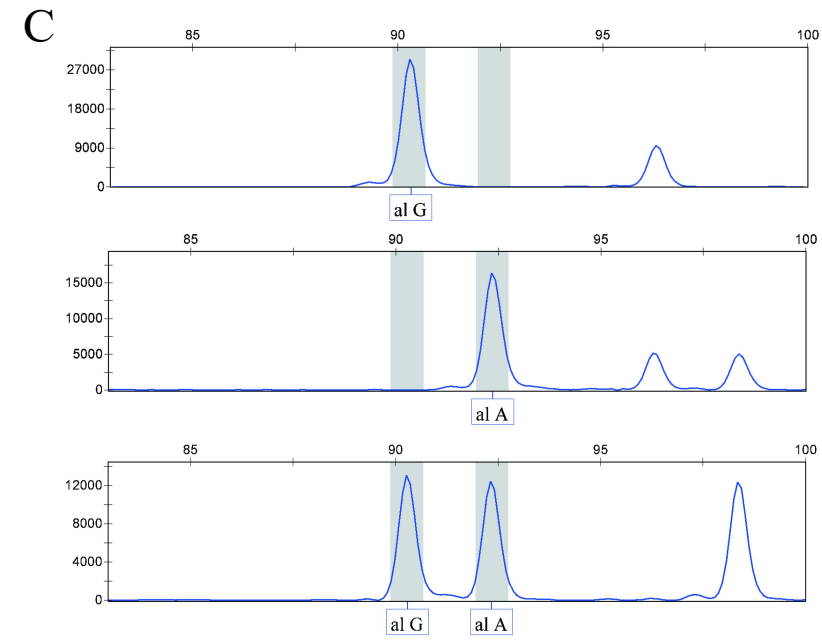
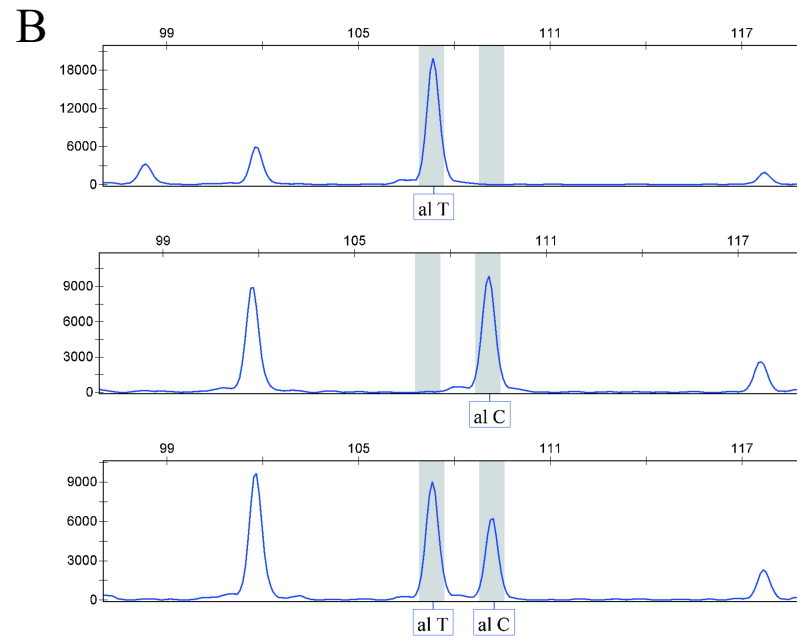
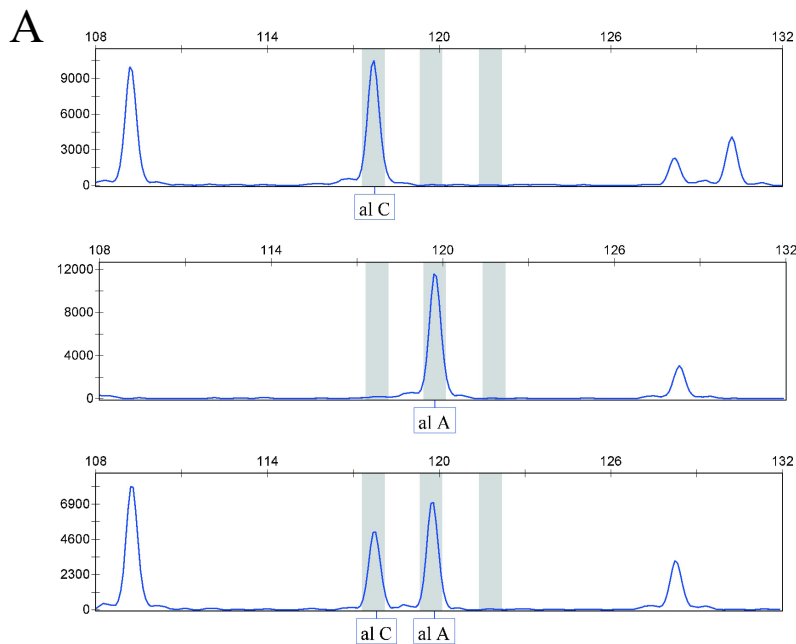
Supplementary Table 1 The specific PCR primer designed for the amplification.

SNP ID	Primer probe sequences (5'-3')	Type	Length
rs3788979	TTGCAGTAGGGAATGGTTTGCTTTGC	identifying primer	26bp
	TTTTGCAGTAGGGAATGGTTTGCTTCGT	identifying primer	28bp
	CTGAGTACAGCAGTGTTGGTGTGTGTTTT	universal primer	29bp
rs1799817	TACCCCCACTGGACTCACCTCG	identifying primer	22bp
	TTTACCCCCACTGGACTCACCTCA	identifying primer	24bp
	TGATGGCAGGTGAAGCCCTTTT	universal primer	22bp
rs1799854	CTGCCACCCTCCCTCCCAGC	identifying primer	20bp
	TTCTGCCACCCTCCCTCCCAGT	identifying primer	22bp
	AGGCCAGCTGACTATGATCGTG	universal primer	22bp
rs757110	ACAGATGTCACAACCTCTGACCTTCTGTCCAGGTGC	identifying primer	35bp
	ACAGATGTCACAATTCTCTGACCTTCTGTCCAGGTGA	identifying primer	37bp
	ACAGATGTCATACAATTCTCTGACCTTCTGTCCAGGTGT	identifying primer	39bp
	GATGAGGGCATTGACGTGCTTTAGACTTACACATGA	universal primer	36bp
rs5742632	CTCCTAGTATGGAACAGATATTTGAGGATGAAGTT	identifying primer	35bp
	TTCTCCTAGTATGGAACAGATATTTGAGGATGAAGTC	identifying primer	37bp
	TGAGAAGATCAATGACACACATAACAATAAGC	universal primer	31bp
rs972936	TCTATCTGGCCTGAACTTCTGCATTGCT	identifying primer	28bp
	TTTCTATCTGGCCTGAACTTCTGCATTACC	identifying primer	30bp
	CTGAATGTCAGAATAACTACACATAACCACACTT	universal primer	33bp

Supplementary Table 2 Haplotype association analysis with global tests (T2MH vs T2MH-DYS).

Haplotype	T2MH-DYS Freq	T2MH Freq	χ^2	P value	OR (95% CI)
AAACAC	0.059	0.009	7.406	0.0065	6.369 (1.401-28.960)
AACCAC	0.045	0.015	2.571	0.1088	2.870 (0.748-11.007)
AACTAC	0.034	0.033	0.020	0.8880	0.915 (0.265-3.158)
AGACAC	0.058	0.032	0.845	0.3579	1.629 (0.571-4.648)
AGACGT	0.104	0.046	3.388	0.0657	2.169 (0.936-5.030)
AGATAC	0.056	0.070	0.587	0.4435	0.692 (0.269-1.781)
GAACAC	0.118	0.076	0.929	0.3351	1.435 (0.686-3.000)
GAATAC	0.041	0.057	0.726	0.3941	0.628 (0.214-1.845)
GAATGT	0.111	0.032	7.653	0.0057	3.391 (1.366-8.414)
GACCAC	0.045	0.018	1.633	0.2013	2.242 (0.630-7.980)
GACCGT	0.077	0.043	1.134	0.2868	1.640 (0.655-4.108)
GGACAC	0.060	0.051	0.007	0.9343	1.041 (0.398-2.723)
GGACGT	0.032	0.033	0.067	0.7957	0.848 (0.242-2.966)
GGATGT	0.024	0.056	2.411	0.1205	0.361 (0.095-1.374)
Global test	—	—	73.73	4.43×10^{-8}	—

Only haplotypes with frequency $\geq 3\%$ in either group are shown. Total alleles: T2DM=512, T2MH=268. Variant order: rs1799817 $\rightarrow$ rs1799854 $\rightarrow$ rs757110 $\rightarrow$ rs3788979 $\rightarrow$ rs5742632 $\rightarrow$ rs972936. Bonferroni correction, $\alpha = 0.0036$. *Multiple tests corrected for haplotype analysis *P* values are still significant. Bold value indicates statistical significance.



Supplementary Figure 1 Capillary electrophoresis peak map. (A) rs757110 (B) rs972936 (C) rs1799817 (D) rs1799854 (E) rs3788979 (F) rs5742632.