

**S3 Table. 35 cis-meQTLs with FDR<0.05 that are associated with MTHFR 677C>T variant (rs1801133) in a samples size of 9,894.** The CpGs are sorted in base pairs.

Rank	CpG	Sample Size	Effect	StdErr	Pvalue	FDR	HetISq	HetPVal	Genes Associated	Chr	Bp	Enhancer	Promoter
22	cg16429182	6,837	0.003	0.000	1.23E-15	2.60E-11	68.7	3.92E-03	-	1	11824095	-	-
32	cg15568408	9,334	-0.002	0.000	2.49E-08	3.62E-04	44.9	6.02E-02	AGTRAP (+29763), MTHFR (+40255)	1	11825928	-	-
5	cg06770735	9,894	0.009	0.000	9.86E-104	9.18E-99	83.7	3.58E-10	MTHFR (+26104), AGTRAP (+43914)	1	11840031	-	-
18	cg02448276	9,894	0.002	0.000	4.98E-23	1.29E-18	60.9	3.09E-03	MTHFR (+20897), AGTRAP (+49121)	1	11845238	-	-
11	cg21864959	9,894	-0.006	0.000	1.22E-50	5.16E-46	78.0	6.55E-07	MTHFR (+18272), AGTRAP (+51746)	1	11847863	TRUE	-
30	cg18276943	9,894	0.001	0.000	1.60E-09	2.48E-05	41.2	6.63E-02	MTHFR (+12573), AGTRAP (+57445)	1	11853610	TRUE	-
1	cg17514528	9,894	0.020	0.001	1.00E-154	4.66E-149	79.2	1.96E-07	CLCN6 (-3275), MTHFR (+3228)	1	11862907	-	-
4	cg17745097	9,894	0.007	0.000	1.34E-113	1.56E-108	46.8	3.69E-02	CLCN6 (-2817), MTHFR (+2770)	1	11863365	-	TRUE
12	cg05228408	9,894	-0.007	0.001	9.22E-43	3.58E-38	22.5	2.22E-01	CLCN6 (-878), MTHFR (+831)	1	11865352	-	-
31	cg01179095	9,894	0.002	0.000	1.35E-08	2.03E-04	0.0	7.53E-01	NPPA (+7211), CLCN6 (+34422)	1	11900652	-	-
10	cg20202438	9,894	0.008	0.001	1.87E-60	8.71E-56	61.6	2.57E-03	NPPA (-123)	1	11907986	TRUE	-
8	cg25341925	9,894	0.007	0.000	2.36E-67	1.37E-62	55.1	1.08E-02	NPPA (-243)	1	11908058	TRUE	-
6	cg05396397	9,894	0.017	0.001	5.99E-95	4.65E-90	43.6	5.27E-02	NPPA (-301)	1	11908164	TRUE	-
3	cg06193043	9,894	0.024	0.001	2.89E-117	4.49E-112	68.5	2.58E-04	NPPA (-384)	1	11908199	TRUE	-
7	cg14194983	9,894	0.014	0.001	5.30E-85	3.53E-80	62.0	2.29E-03	NPPA (-483)	1	11908298	TRUE	-
2	cg24844545	9,894	0.021	0.001	1.10E-131	2.56E-126	64.2	1.24E-03	NPPA (-484)	1	11908347	TRUE	-
17	cg07585427	8,553	0.010	0.001	1.72E-24	4.71E-20	36.4	1.17E-01	NPPA (-9687), NPPB (+1465)	1	11917550	-	-
25	cg24697075	9,894	0.005	0.001	1.30E-12	2.42E-08	0.0	6.31E-01	NPPB (+160)	1	11918807	-	-
16	cg00299820	9,334	-0.006	0.000	1.36E-38	3.96E-34	0.0	4.88E-01	NPPB (-24139), KIAA2013 (+43354)	1	11943154	TRUE	-
15	cg03321020	9,894	-0.010	0.001	4.53E-40	1.41E-35	0.0	8.43E-01	NPPB (-39359), KIAA2013 (+28134)	1	11958326	-	-
9	cg27432085	9,894	-0.017	0.001	4.25E-62	2.20E-57	16.8	2.79E-01	NPPB (-39557), KIAA2013 (+27936)	1	11958572	-	-
23	cg09872491	9,894	0.003	0.000	4.59E-14	9.29E-10	11.0	3.37E-01	NPPB (-40174), KIAA2013 (+27319)	1	11959141	-	-
19	cg23086274	9,173	-0.003	0.000	1.99E-20	4.88E-16	79.3	5.66E-06	NPPB (-49192), KIAA2013 (+18301)	1	11968159	-	TRUE
34	cg03532363	9,334	-0.002	0.000	1.27E-06	1.69E-02	0.0	6.24E-01	NPPB (-50656), KIAA2013 (+16837)	1	11969623	-	TRUE
26	cg22932223	6,277	0.006	0.001	1.40E-12	2.51E-08	0.0	4.18E-01	-	1	11986734	-	TRUE
13	cg07603449	6,837	0.012	0.001	2.26E-42	8.10E-38	29.4	2.04E-01	-	1	11986842	-	TRUE

27	cg10438121	9,334	0.007	0.001	2.20E-11	3.79E-07	0.0	6.29E-01	PLOD1 (-3032)	1	11991667	-	-
21	cg03529003	9,894	0.004	0.000	2.45E-18	5.43E-14	49.2	2.72E-02	PLOD1 (-466)	1	11994281	-	TRUE
33	cg18184769	9,894	0.003	0.001	2.65E-07	3.74E-03	5.8	3.89E-01	MFN2 (-499)	1	12039714	-	TRUE
28	cg03593358	9,894	0.003	0.000	1.48E-10	2.46E-06	0.0	8.56E-01	MFN2 (-276)	1	12039985	-	TRUE
24	cg05398737	8,643	0.004	0.001	3.49E-13	6.77E-09	0.0	8.44E-01	TNFRSF8 (-44654), MFN2 (+38542)	1	12078755	-	-
29	cg22534105	9,894	0.003	0.001	2.11E-10	3.39E-06	31.4	1.40E-01	TNFRSF8 (-44621), MFN2 (+38575)	1	12078836	-	-
14	cg02156723	9,894	-0.008	0.001	1.99E-41	6.62E-37	53.3	1.47E-02	TNFRSF8 (-22778), MFN2 (+60418)	1	12100631	TRUE	-
20	cg22877366	9,894	-0.008	0.001	1.36E-19	3.17E-15	43.0	5.59E-02	TNFRSF8 (-15789), MFN2 (+67407)	1	12107668	-	TRUE
35	cg20978923	6,837	0.004	0.001	2.85E-06	3.69E-02	40.7	1.20E-01	-	1	12184574	-	-

Effect: Regression coefficients

FDR: False discovery Rate adjusted P-value, threshold = 0.05

HetISq: Heterogeneity I<sup>2</sup> parameter

HetPVal: Heterogeneity p-value

Enhancer & promoter annotations from Illumina 450k annotation