

**Supplemental Table S6**  
**Epityper Methylation Ratios (Reduced Set: BMM)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6							BALB/c												
							C57BL/6 male BMM (1)	C57BL/6 male BMM (2)	C57BL/6 male BMM (3)	C57BL/6 female BMM (1)	C57BL/6 female BMM (2)	C57BL/6 female BMM (3)	F1 (mother BALB/c) female BMM (A1)	F1 (mother BALB/c) female BMM (A2)	F1 (mother BALB/c) male BMM (A3)	F1 (mother BALB/c) male BMM (B1)	F1 (mother BALB/c) male BMM (B2)	F1 (mother C57BL/6) female BMM (C1)	F1 (mother C57BL/6) female BMM (C2)	F1 (mother C57BL/6) male BMM (C4)	BALB/c male BMM (1)	BALB/c male BMM (2)	BALB/c male BMM (3)	BALB/c female BMM (1)	BALB/c female BMM (2)	BALB/c female BMM (3)
02	1600021P15Rik	both	CpG 1	CpG_1	CpG 1	chr16:28834032-28834034	0.08	0.06	0.08	0.08	0.07	0.08	0.15	0.16	0.16	0.19	0.2	0.28	0.22	0.17	0.31	0.33	0.25	0.3	NA	0.31
02	1600021P15Rik	both	CpG 2	CpG_2	CpG 2	chr16:28833991-28833993	0.07	0	0	0.09	0.04	0.1	0.38	0.35	0.2	NA	0.28	0.39	NA	0.36	NA	0.44	0.43	0.55	NA	0.59
02	1600021P15Rik	both	CpG 3	CpG_3	CpG 3	chr16:28833971-28833973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
02	1600021P15Rik	both	CpG 4	CpG_4,5	CpG 4,5	chr16:28833936-28833938	0.03	0.05	0.06	0.04	0.05	0.05	0.33	0.47	0.37	0.39	0.43	0.5	0.39	0.36	0.92	0.93	0.92	0.91	NA	0.95
02	1600021P15Rik	both	CpG 5	CpG_4,5	CpG 4,5	chr16:28833924-28833926	0.03	0.05	0.06	0.04	0.05	0.05	0.33	0.47	0.37	0.39	0.43	0.5	0.39	0.36	0.92	0.93	0.92	0.91	NA	0.95
02	1600021P15Rik	both	CpG 6	CpG_6	CpG 6	chr16:28833915-28833917	0.07	0.05	0.07	0.05	0.05	0.06	0.42	0.59	0.46	0.47	0.45	0.65	0.47	0.42	0.99	0.97	1	1	NA	0.91
02	1600021P15Rik	both	CpG 7	CpG_7	CpG 7							NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
02	1600021P15Rik	both	CpG 8	CpG_8	CpG 8	chr16:28833818-28833820	0.15	0.13	0.15	0.15	0.16	0.16	0.42	0.53	0.45	0.47	0.48	0.58	0.46	0.43	0.85	0.83	0.83	0.84	NA	0.84
02	1600021P15Rik	both	CpG 9	CpG_9	CpG 9	chr16:28833762-28833764	0.15	0.13	0.15	0.15	0.16	0.16	0.42	0.53	0.45	0.47	0.48	0.58	0.46	0.43	0.85	0.83	0.83	0.84	NA	0.84
02	1600021P15Rik	both	CpG 10	CpG_10	CpG 10	chr16:28833732-28833734	0.25	0.45	0.35	0.32	0.3	0.29	0.67	0.83	0.59	0.78	0.74	0.8	0.79	0.69	1	1	1	1	NA	1
05	Asb4	both	CpG 1	CpG_1	CpG 1	chr6:5333237-5333239	0.15	0.2	0.21	0.16	0.12	0.14	0.55	0.54	0.55	0.55	0.51	0.54	0.55	0.59	0.91	0.94	0.89	0.9	0.91	0.88
05	Asb4	both	CpG 2	CpG_2	CpG 2	chr6:5333300-5333302	0.33	0.28	0.21	0.24	0.19	0.17	0.49	0.45	0.54	0.51	0.47	0.44	0.47	0.56	0.74	0.73	0.66	0.65	0.67	0.66
05	Asb4	both	CpG 3	CpG_3	CpG 3	chr6:5333357-5333359	0.54	0.5	0.5	0.46	0.47	0.51	0.66	0.68	0.67	0.65	0.61	0.61	0.67	0.69	0.84	0.83	0.79	0.74	0.79	0.77
05	Asb4	both	CpG 4	CpG_4	CpG 4	chr6:5333384-5333386	0.54	0.5	0.5	0.46	0.47	0.51	0.66	0.68	0.67	0.65	0.61	0.61	0.67	0.69	0.84	0.83	0.79	0.74	0.79	0.77
05	Asb4	both	CpG 5	CpG_5	CpG 5	chr6:5333417-5333419	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
06	Asb4	both	CpG 1	CpG_1,2	CpG 1,2	chr6:5333724-5333726	0.38	0.27	0.31	0.3	0.3	0.29	0.62	0.56	0.57	0.48	0.49	0.55	0.58	0.49	0.88	0.9	0.89	0.88	0.93	0.86
06	Asb4	both	CpG 2	CpG_1,2	CpG 1,2	chr6:5333721-5333723	0.38	0.27	0.31	0.3	0.3	0.29	0.62	0.56	0.57	0.48	0.49	0.55	0.58	0.49	0.88	0.9	0.89	0.88	0.93	0.86
06	Asb4	both	CpG 3	CpG_3	CpG 3	chr6:5333659-5333661	0.62	0.4	0.52	0.45	0.42	0.41	0.63	0.63	0.6	0.56	0.59	0.68	0.62	0.6	0.83	0.84	0.87	0.91	0.97	0.89
06	Asb4	both	CpG 4	CpG_4	CpG 4	chr6:5333625-5333627	0.62	0.4	0.52	0.45	0.42	0.41	0.63	0.63	0.6	0.56	0.59	0.68	0.62	0.6	0.83	0.84	0.87	0.91	0.97	0.89
06	Asb4	both	CpG 5	CpG_5	CpG 5	chr6:5333605-5333607	0.37	0.15	0.32	0.25	0.21	0.2	0.64	0.5	0.56	0.45	0.51	0.45	0.56	0.59	0.87	0.83	0.9	0.9	0.9	0.87
07	Asb4	both	CpG 1	CpG_1,2	CpG 1,2	chr6:5334203-5334205	0.03	0.05	0.04	0.02	0.02	0.02	0.16	0.16	0.17	0.22	0.15	0.16	0.17	0.15	0.4	0.29	0.32	0.32	0.34	0.27
07	Asb4	both	CpG 2	CpG_1,2	CpG 1,2	chr6:5334200-5334202	0.03	0.05	0.04	0.02	0.02	0.02	0.16	0.16	0.17	0.22	0.15	0.16	0.17	0.15	0.4	0.29	0.32	0.32	0.34	0.27
07	Asb4	both	CpG 3	CpG_3,4,5	CpG 3,4,5	chr6:5334181-5334183	0.08	0.07	0.08	0.06	0.11	0.07	0.27	0.26	0.28	0.27	0.27	0.28	0.27	0.24	0.59	0.5	NA	0.49	0.53	0.49
07	Asb4	both	CpG 4	CpG_3,4,5	CpG 3,4,5	chr6:5334179-5334181	0.08	0.07	0.08	0.06	0.11	0.07	0.27	0.26	0.28	0.27	0.27	0.28	0.27	0.24	0.59	0.5	NA	0.49	0.53	0.49
07	Asb4	both	CpG 5	CpG_3,4,5	CpG 3,4,5	chr6:5334177-5334179	0.08	0.07	0.08	0.06	0.11	0.07	0.27	0.26	0.28	0.27	0.27	0.28	0.27	0.24	0.59	0.5	NA	0.49	0.53	0.49
07	Asb4	both	CpG 6	CpG_6,7	CpG 6,7	chr6:5334098-5334100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
07	Asb4	both	CpG 7	CpG_6,7	CpG 6,7	chr6:5334087-5334089	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
07	Asb4	both	CpG 8	CpG_8	CpG 8	chr6:5334053-5334055	0.01	0.01	0.04	0	0.03	0.02	0.2	0.23	0.23	0.24	0.17	0.26	0.23	0.22	0.49	0.39	0.44	0.39	0.41	0.44
07	Asb4	both	CpG 9	CpG_9,10	CpG 9,10	chr6:5334013-5334015	0.02	0.06	0.1	0.05	0.07	0.05	0.28	0.29	0.29	0.32	0.27	0.3	0.32	0.27	0.65	0.59	0.58	0.6	0.64	0.56
07	Asb4	both	CpG 10	CpG_9,10	CpG 9,10	chr6:5334007-5334009	0.02	0.06	0.1	0.05	0.07	0.05	0.28	0.29	0.29	0.32	0.27	0.3	0.32	0.27	0.65	0.59	0.58	0.6	0.64	0.56
09	Coro2a	both	CpG 1	CpG_1,2	CpG 1,2	chr4:46621092-46621094	0.65	0.69	0.72	0.67	0.66	0.64	0.83	0.82	0.78	0.82	0.82	0.81	0.79	0.82	0.96	0.94	0.96	0.95	0.94	0.96
09	Coro2a	both	CpG 2	CpG_1,2	CpG 1,2	chr4:46621096-46621098	0.65	0.69	0.72	0.67	0.66	0.64	0.83	0.82	0.78	0.82	0.82	0.81	0.79	0.82	0.96	0.94	0.96	0.95	0.94	0.96
09	Coro2a	both	CpG 3	CpG_3	CpG 3	chr4:46621101-46621103	0.66	0.63	0.67	0.64	0.63	0.62	0.8	0.83	0.77	0.81	0.8	0.8	0.84	0.96	0.95	0.96	0.97	0.97	0.95	0.95
09	Coro2a	both	CpG 4	CpG_4	CpG 4	chr4:46621124-46621126	0.43	0.45	0.47	0.4	0.4	0.41	0.7	0.67	0.59	0.63	0.66	0.64	0.59	0.66	0.92	0.91	0.92	0.92	0.92	0.92



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Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6						BALB/c													
							C57BL/6 male BMM (1)	C57BL/6 male BMM (2)	C57BL/6 male BMM (3)	C57BL/6 female BMM (1)	C57BL/6 female BMM (2)	C57BL/6 female BMM (3)	F1 (mother BALB/c) female BMM (A1)	F1 (mother BALB/c) female BMM (A2)	F1 (mother BALB/c) male BMM (A3)	F1 (mother BALB/c) male BMM (B1)	F1 (mother BALB/c) male BMM (B2)	F1 (mother C57BL/6) female BMM (C1)	F1 (mother C57BL/6) female BMM (C2)	F1 (mother C57BL/6) male BMM (C4)	BALB/c male BMM (1)	BALB/c male BMM (2)	BALB/c male BMM (3)	BALB/c female BMM (1)	BALB/c female BMM (2)	BALB/c female BMM (3)
15	Eps811	both	CpG 8	CpG_9.10	CpG 7.8	chr7:4081343-4081345	0.39	0.3	0.52	0.36	0.47	0.51	0.16	0.27	0.21	0.25	0.23	0.25	0.1	0.19	0.28	0.24	0.35	0.25	0.28	0.3
15	Eps811	both	CpG 9	CpG_9.10	CpG 9.10	chr7:4081318-4081320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15	Eps811	both	CpG 10	CpG_9.10	CpG 9.10	chr7:4081310-4081312	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15	Eps811	both	CpG 11	CpG_11	CpG 11	chr7:4081300-4081302	0.35	0.18	0.39	0.2	0.38	0.41	0.13	0.11	0.1	0.14	0.11	0.08	0.08	0.08	0.13	0.15	0.13	0.1	0.09	0.13
15	Eps811	both	CpG 12	CpG_12	CpG 12	chr7:4081289-4081291	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15	Eps811	both	CpG 13	CpG_13.14	CpG 13.14	chr7:4081285-4081287	0.37	0.34	0.54	0.34	0.47	0.5	0.23	0.18	0.23	0.22	0.16	0.23	0.18	0.19	0.26	0.27	0.21	0.21	0.24	0.24
15	Eps811	both	CpG 14	CpG_13.14	CpG 13.14	chr7:4081277-4081279	0.37	0.34	0.54	0.34	0.47	0.5	0.23	0.18	0.23	0.22	0.16	0.23	0.18	0.19	0.26	0.27	0.21	0.21	0.24	0.24
15	Eps811	both	CpG 15	CpG_15.16	CpG 15.16	chr7:4081270-4081272	0.38	0.22	0.36	0.22	0.41	0.42	0.14	0.12	0.14	0.15	0.12	0.18	0.12	0.13	0.17	0.15	0.12	0.17	0.13	0.09
15	Eps811	both	CpG 16	CpG_15.16	CpG 15.16	chr7:4081268-4081270	0.38	0.22	0.36	0.22	0.41	0.42	0.14	0.12	0.14	0.15	0.12	0.18	0.12	0.13	0.17	0.15	0.12	0.17	0.13	0.09
15	Eps811	both	CpG 17	CpG_17	CpG 17	chr7:4081209-4081211	0.3	0.07	0.29	0.13	0.28	0.23	0.04	0.02	0.04	0.1	0.05	0.05	0.09	0.06	0.05	0.17	0.09	0.1	0.1	0.05
15	Eps811	both	CpG 18	CpG_18	CpG 18	chr7:4081192-4081194	0.78	0.62	0.65	0.59	0.74	0.72	0.56	0.61	0.61	0.66	0.51	0.5	0.47	0.7	0.81	0.72	0.74	0.68	0.63	0.68
19	Isoc2b	both	CpG 1	CpG_1	CpG 1	chr7:4468813-4468815	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
19	Isoc2b	both	CpG 2	CpG_2	CpG 2	chr7:4468830-4468832	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
19	Isoc2b	both	CpG 3	CpG_3	CpG 3	chr7:4468845-4468847	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
19	Isoc2b	both	CpG 4	CpG_4	CpG 4	chr7:4468862-4468864	0.51	0.46	0.55	0.47	0.53	0.5	0.75	0.65	0.63	0.6	0.65	0.71	0.74	NA	0.95	0.93	0.9	0.88	NA	0.96
19	Isoc2b	both	CpG 5	CpG_5	CpG 5	chr7:4468965-4468967	0	0	0.02	0.01	0	0.01	0.15	0.18	0.09	0.14	0.2	0.2	0.29	NA	0.62	0.69	0.55	0.46	NA	0.68
19	Isoc2b	both	CpG 6	CpG_6.7	CpG 6.7	chr7:4469012-4469014	0.04	0.02	0.02	0.03	0.03	0.04	0.24	0.24	0.15	0.19	0.24	0.27	0.35	NA	0.82	0.81	0.7	0.6	NA	0.91
19	Isoc2b	both	CpG 7	CpG_6.7	CpG 6.7	chr7:4469014-4469016	0.04	0.02	0.02	0.03	0.03	0.04	0.24	0.24	0.15	0.19	0.24	0.27	0.35	NA	0.82	0.81	0.7	0.6	NA	0.91
19	Isoc2b	both	CpG 8	CpG_8	CpG 8	chr7:4469055-4469057	0.06	0.04	0.07	0.04	0.04	0.07	0.27	0.31	0.18	0.23	0.33	0.3	0.43	NA	0.83	0.83	0.73	0.66	NA	0.86
19	Isoc2b	both	CpG 9	CpG_9	CpG 9	chr7:4469061-4469063	0.2	0.04	0	0.11	0.07	0.13	0.28	NA	0.12	0.25	0.34	0.32	NA	NA	1	0.84	0.59	0.56	NA	0.64
19	Isoc2b	both	CpG 10	CpG_10.11	CpG 10.11	chr7:4469080-4469082	0.08	0.04	0.12	0.06	0.05	0.06	0.29	0.28	0.18	0.24	0.28	0.31	0.4	NA	0.85	0.87	0.73	0.58	NA	0.94
19	Isoc2b	both	CpG 11	CpG_10.11	CpG 10.11	chr7:4469087-4469089	0.08	0.04	0.12	0.06	0.05	0.06	0.29	0.28	0.18	0.24	0.28	0.31	0.4	NA	0.85	0.87	0.73	0.58	NA	0.94
19	Isoc2b	both	CpG 12	CpG_12	CpG 12	chr7:4469099-4469101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	Isoc2b	both	CpG 1	CpG_1	CpG 1	chr7:4469133-4469135	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	Isoc2b	both	CpG 2	CpG_2	CpG 2	chr7:4469138-4469140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	Isoc2b	both	CpG 3	CpG_3	CpG 3	chr7:4469148-4469150	0.14	0.07	0.05	0.13	0.11	0.1	NA	NA	0.2	0.22	0.3	0.24	0.39	0.24	0.89	1	0.46	1	0.67	1
21	Isoc2b	both	CpG 4	CpG_4	CpG 4	chr7:4469163-4469165	0	0	0	0	0	0	0.08	0.11	0.08	0.08	0.1	0.12	0.2	0.09	0.71	0.72	0.52	0.46	0.6	0.78
21	Isoc2b	both	CpG 5	CpG_5	CpG 5	chr7:4469169-4469171	0.05	0.03	0.06	0.03	0.04	0.01	0.18	0.18	0.12	0.11	0.16	0.16	0.25	0.14	0.85	0.83	0.62	0.58	0.68	0.86
21	Isoc2b	both	CpG 6	CpG_6	CpG 6	chr7:4469192-4469194	0.05	0.07	0.11	0.06	0.08	0.06	0.18	0.18	0.12	0.16	0.16	0.2	0.25	0.13	0.75	0.73	0.64	0.53	0.59	0.8
21	Isoc2b	both	CpG 7	CpG_7	CpG 7	chr7:4469206-4469208	0	0	0.02	0.03	0.02	0.02	0.24	0.25	0.15	0.15	0.19	0.2	0.31	0.16	0.87	0.89	0.81	0.67	0.78	0.91
21	Isoc2b	both	CpG 8	CpG_8	CpG 8	chr7:4469226-4469228	0.03	0.04	0.02	0.01	0.01	0.01	0.14	0.18	0.09	0.11	0.15	0.17	0.23	0.1	0.78	0.76	0.64	0.51	0.63	0.77
21	Isoc2b	both	CpG 9	CpG_9	CpG 9	chr7:4469259-4469261	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	Isoc2b	both	CpG 10	CpG_10.11	CpG 10.11	chr7:4469271-4469273	0.01	0.03	0.05	0.02	0.02	0.03	0.18	0.16	0.1	0.13	0.14	0.17	0.23	0.11	0.8	0.82	0.6	0.48	0.63	0.88
21	Isoc2b	both	CpG 11	CpG_10.11	CpG 10.11	chr7:4469273-4469275	0.01	0.03	0.05	0.02	0.02	0.03	0.18	0.16	0.1	0.13	0.14	0.17	0.23	0.11	0.8	0.82	0.6	0.48	0.63	0.88

**Supplemental Table S6**  
**Epityper Methylation Ratios (Reduced Set: BMM)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6							F1 (mother BALB/c)				BALB/c								
							C57BL/6 male BMM (1)	C57BL/6 male BMM (2)	C57BL/6 male BMM (3)	C57BL/6 female BMM (1)	C57BL/6 female BMM (2)	C57BL/6 female BMM (3)	F1 (mother BALB/c) female BMM (A1)	F1 (mother BALB/c) female BMM (A2)	F1 (mother BALB/c) male BMM (A3)	F1 (mother BALB/c) male BMM (B1)	F1 (mother BALB/c) male BMM (B2)	F1 (mother C57BL/6) female BMM (C1)	F1 (mother C57BL/6) female BMM (C2)	F1 (mother C57BL/6) male BMM (C4)	BALB/c male BMM (1)	BALB/c male BMM (2)	BALB/c male BMM (3)	BALB/c female BMM (1)	BALB/c female BMM (2)	BALB/c female BMM (3)
21	Isoc2b	both	CpG 12	CpG_12.13.14	CpG 12.13.14	chr7:4469287-4469289	0.01	0	0.02	0.04	0	0	0.13	0.12	0.08	0.08	0.1	0.12	0.2	0.1	0.76	0.81	0.59	0.49	0.6	0.84
21	Isoc2b	both	CpG 13	CpG_12.13.14	CpG 12.13.14	chr7:4469289-4469291	0.01	0	0.02	0.04	0	0	0.13	0.12	0.08	0.08	0.1	0.12	0.2	0.1	0.76	0.81	0.59	0.49	0.6	0.84
21	Isoc2b	both	CpG 14	CpG_12.13.14	CpG 12.13.14	chr7:4469292-4469294	0.01	0	0.02	0.04	0	0	0.13	0.12	0.08	0.08	0.1	0.12	0.2	0.1	0.76	0.81	0.59	0.49	0.6	0.84
21	Isoc2b	both	CpG 15	CpG_15.16.17	CpG 15.16.17	chr7:4469305-4469307	0.09	0.05	0.11	0.11	0.11	0.1	0.26	0.23	0.18	0.17	0.22	0.26	0.31	0.2	0.86	0.84	0.72	0.65	0.71	0.89
21	Isoc2b	both	CpG 16	CpG_15.16.17	CpG 15.16.17	chr7:4469308-4469310	0.09	0.05	0.11	0.11	0.11	0.1	0.26	0.23	0.18	0.17	0.22	0.26	0.31	0.2	0.86	0.84	0.72	0.65	0.71	0.89
21	Isoc2b	both	CpG 17	CpG_15.16.17	CpG 15.16.17	chr7:4469312-4469314	0.09	0.05	0.11	0.11	0.11	0.1	0.26	0.23	0.18	0.17	0.22	0.26	0.31	0.2	0.86	0.84	0.72	0.65	0.71	0.89
21	Isoc2b	both	CpG 18	CpG_18	CpG 18	chr7:4469345-4469347	0.14	0.07	0.05	0.13	0.11	0.1	NA	NA	0.2	0.22	0.3	0.24	0.39	0.24	0.89	1	0.46	1	0.67	1
21	Isoc2b	both	CpG 19	CpG_19	CpG 19	chr7:4469372-4469374	0.02	0.02	0.01	0	0	0.01	0.2	0.2	0.17	0.17	0.16	0.23	0.21	0.13	0.82	0.83	0.74	0.64	0.76	0.86
21	Isoc2b	both	CpG 20	CpG_20	CpG 20	chr7:4469406-4469408	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
22	Isoc2b	both	CpG 1	CpG_1	CpG 1	chr7:4469851-4469853	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
22	Isoc2b	both	CpG 2	CpG_2.3	CpG 2.3	chr7:4469816-4469818	0.12	0.14	0.12	0.04	0.15	0.04	0.4	0.37	0.31	0.33	0.35	0.46	0.55	0.37	0.88	0.9	0.78	0.76	0.86	0.88
22	Isoc2b	both	CpG 3	CpG_2.3	CpG 2.3	chr7:4469808-4469810	0.12	0.14	0.12	0.04	0.15	0.04	0.4	0.37	0.31	0.33	0.35	0.46	0.55	0.37	0.88	0.9	0.78	0.76	0.86	0.88
22	Isoc2b	both	CpG 4	CpG_4	CpG 4	chr7:4469790-4469792	0.07	0.1	0.07	0.07	0.09	0.06	0.38	0.34	0.27	0.29	0.32	0.42	0.52	0.36	0.86	0.84	0.75	0.76	0.79	0.87
22	Isoc2b	both	CpG 5	CpG_5.6	CpG 5.6	chr7:4469764-4469766	0.06	0.1	0.18	0.1	0.11	0.08	0.35	0.31	0.26	0.26	0.34	0.39	0.49	0.31	0.8	0.79	0.69	0.67	0.7	0.75
22	Isoc2b	both	CpG 6	CpG_5.6	CpG 5.6	chr7:4469762-4469764	0.06	0.1	0.18	0.1	0.11	0.08	0.35	0.31	0.26	0.26	0.34	0.39	0.49	0.31	0.8	0.79	0.69	0.67	0.7	0.75
22	Isoc2b	both	CpG 7	CpG_7	CpG 7	chr7:4469693-4469695	0.05	0.03	0.05	0.03	0.04	0.03	0.33	0.29	0.22	0.25	0.32	0.34	0.43	0.31	0.83	0.78	0.68	0.64	0.67	0.73
22	Isoc2b	both	CpG 8	CpG_8	CpG 8	chr7:4469660-4469662	0.06	0.06	0.03	0.06	0.04	0.01	0.21	0.12	0.11	0.14	0.15	0.45	0.57	0.45	1	0.85	0.85	0.83	0.88	1
22	Isoc2b	both	CpG 9	CpG_9	CpG 9	chr7:4469648-4469650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
22	Isoc2b	both	CpG 10	CpG_10	CpG 10	chr7:4469616-4469618	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
22	Isoc2b	both	CpG 11	CpG_11	CpG 11	chr7:4469608-4469610	0.01	0.03	0.06	0.03	0.03	0.01	0.35	0.3	0.24	0.26	0.32	0.41	0.52	0.32	0.89	0.87	0.8	0.76	0.81	0.88
22	Isoc2b	both	CpG 12	CpG_12	CpG 12	chr7:4469598-4469600	0.07	0.05	0.09	0.05	0.04	0.06	0.36	0.3	0.26	0.22	0.42	0.34	0.56	0.31	0.85	0.82	0.79	0.8	0.74	0.94
22	Isoc2b	both	CpG 13	CpG_13	CpG 13	chr7:4469590-4469592	0.01	0.02	0.03	0.02	0	0.02	0.24	0.24	0.15	0.19	0.24	0.25	0.42	0.22	0.82	0.8	0.79	0.71	0.71	0.79
22	Isoc2b	both	CpG 14	CpG_14	CpG 14	chr7:4469583-4469585	0.05	0.05	0.06	0.05	0.04	0.03	0.24	0.24	0.19	0.22	0.25	0.31	0.38	0.23	0.79	0.78	0.71	0.61	0.68	0.78
22	Isoc2b	both	CpG 15	CpG_15.16.17	CpG 15.16.17	chr7:4469534-4469536	0.08	0.04	0.05	0.08	0.08	0.07	0.26	0.27	0.2	0.24	0.26	0.27	0.35	0.25	0.76	0.69	0.7	0.59	0.69	0.89
22	Isoc2b	both	CpG 16	CpG_15.16.17	CpG 15.16.17	chr7:4469530-4469532	0.08	0.04	0.05	0.08	0.08	0.07	0.26	0.27	0.2	0.24	0.26	0.27	0.35	0.25	0.76	0.69	0.7	0.59	0.69	0.89
22	Isoc2b	both	CpG 17	CpG_15.16.17	CpG 15.16.17	chr7:4469525-4469527	0.08	0.04	0.05	0.08	0.08	0.07	0.26	0.27	0.2	0.24	0.26	0.27	0.35	0.25	0.76	0.69	0.7	0.59	0.69	0.89
26	Pdgfrb	both	CpG 1	CpG_1	CpG 1	chr18:61191274-61191276	0.7	0.72	0.81	0.76	0.73	0.75	0.43	0.47	0.46	0.48	0.48	0.52	0.45	0.47	0.31	0.34	0.31	0.24	0.3	0.25
26	Pdgfrb	both	CpG 2	CpG_2	CpG 2	chr18:61191256-61191258	0.77	0.77	0.71	0.75	0.74	0.72	0.4	0.44	0.49	0.48	0.49	0.54	0.45	0.5	0.43	0.45	0.39	0.37	0.4	0.33
26	Pdgfrb	both	CpG 3	CpG_3	CpG 3	chr18:61191237-61191239	0.78	0.95	0.98	0.89	0.91	0.82	0.49	0.52	0.53	0.52	0.52	0.51	0.56	0.56	0.41	0.49	0.44	0.39	0.47	0.32
26	Pdgfrb	both	CpG 4	CpG_4.5	CpG 4.5	chr18:61191231-61191233	0.82	0.87	0.85	0.85	0.87	0.88	0.42	0.45	0.51	0.46	0.45	0.49	0.42	0.47	0.3	0.33	0.34	0.22	0.29	0.2
26	Pdgfrb	both	CpG 5	CpG_4.5	CpG 4.5	chr18:61191228-61191230	0.82	0.87	0.85	0.85	0.87	0.88	0.42	0.45	0.51	0.46	0.45	0.49	0.42	0.47	0.3	0.33	0.34	0.22	0.29	0.2
26	Pdgfrb	both	CpG 6	CpG_6	CpG 6	chr18:61191211-61191213	0.93	0.91	0.91	0.92	0.92	0.93	0.44	0.42	0.53	0.55	0.58	0.51	0.44	0.53	0.27	0.31	0.27	0.17	0.27	0.18
26	Pdgfrb	both	CpG 7	CpG_7	CpG 7	chr18:61191179-61191181	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
26	Pdgfrb	both	CpG 8	CpG_8	CpG 8	chr18:61191168-61191170	0.81	0.97	1	0.92	0.91	0.9	0.49	0.5	0.52	0.57	0.54	0.59	0.47	0.55	0.24	0.33	0.3	0.14	0.23	0.15

**Supplemental Table S6**  
**Epityper Methylation Ratios (Reduced Set: BMM)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male BMM			F1 (mother BALB/c) female BMM			F1 (mother C57BL/6) female BMM			BALB/c male BMM										
							(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)								
26	Pdgfrb	both	CpG 9	CpG_9	CpG 9	chr18:61191157-61191159	0.69	0.82	0.87	0.79	0.84	0.78	0.42	0.48	0.49	0.51	0.42	0.51	0.46	0.52	0.3	0.38	0.31	0.18	0.26	0.17
26	Pdgfrb	both	CpG 10	CpG_10.11	CpG 10.11	chr18:61191152-61191154	0.67	0.69	0.74	0.72	0.72	0.72	0.49	0.53	0.54	0.54	0.51	0.55	0.5	0.51	0.42	0.42	0.42	0.35	0.41	0.34
26	Pdgfrb	both	CpG 11	CpG_10.11	CpG 10.11	chr18:61191148-61191150	0.67	0.69	0.74	0.72	0.72	0.72	0.49	0.53	0.54	0.54	0.51	0.55	0.5	0.51	0.42	0.42	0.42	0.35	0.41	0.34
26	Pdgfrb	both	CpG 12	CpG_12	CpG 12	chr18:61191142-61191144	0.7	0.72	0.81	0.76	0.73	0.75	0.43	0.47	0.46	0.48	0.48	0.52	0.45	0.47	0.31	0.34	0.31	0.24	0.3	0.25
26	Pdgfrb	both	CpG 13	CpG_13	CpG 13	chr18:61191097-61191099	0.91	0.87	0.85	0.81	0.83	0.82	0.32	0.32	0.31	0.33	0.27	0.34	0.29	0.33	0.32	0.38	0.34	0.28	0.28	0.17
26	Pdgfrb	both	CpG 14	CpG_14	CpG 14	chr18:61191093-61191095	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
26	Pdgfrb	both	CpG 15	CpG_15	CpG 15	chr18:61191078-61191080	0.86	0.8	0.87	0.85	0.88	0.85	0.46	0.46	0.53	0.56	0.54	0.5	0.49	0.55	0.36	0.38	0.36	0.25	0.39	0.22
26	Pdgfrb	both	CpG 16	CpG_16.17	CpG 16.17	chr18:61191056-61191058	0.64	0.8	0.83	0.77	0.83	0.82	0.42	0.42	0.45	0.43	0.47	0.48	0.43	0.46	0.25	0.27	0.24	0.15	0.24	0.15
26	Pdgfrb	both	CpG 17	CpG_16.17	CpG 16.17	chr18:61191043-61191045	0.64	0.8	0.83	0.77	0.83	0.82	0.42	0.42	0.45	0.43	0.47	0.48	0.43	0.46	0.25	0.27	0.24	0.15	0.24	0.15
35	Sfi1	both	CpG 1	CpG_1	CpG 1	chr11:3093387-3093389	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 2	CpG_2.3.4	CpG_2.3.4	chr11:3093430-3093432	0.92	0.95	0.93	0.95	0.93	0.93	0.8	NA	0.73	0.83	0.81	0.81	0.83	0.82	0.39	0.35	0.37	0.29	0.35	0.36
35	Sfi1	both	CpG 3	CpG_2.3.4	CpG_2.3.4	chr11:3093438-3093440	0.92	0.95	0.93	0.95	0.93	0.93	0.8	NA	0.73	0.83	0.81	0.81	0.83	0.82	0.39	0.35	0.37	0.29	0.35	0.36
35	Sfi1	both	CpG 4	CpG_2.3.4	CpG_2.3.4	chr11:3093441-3093443	0.92	0.95	0.93	0.95	0.93	0.93	0.8	NA	0.73	0.83	0.81	0.81	0.83	0.82	0.39	0.35	0.37	0.29	0.35	0.36
35	Sfi1	both	CpG 5	CpG_5.6.7	CpG_5.6.7	chr11:3093444-3093446	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 6	CpG_5.6.7	CpG_5.6.7	chr11:3093447-3093449	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 7	CpG_5.6.7	CpG_5.6.7	chr11:3093459-3093461	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 8	CpG_8	CpG 8	chr11:3093467-3093469	0.74	0.82	0.85	0.95	0.89	0.84	0.79	NA	NA	0.81	0.9	0.79	NA	NA	NA	0.51	0.43	0.51	0.48	0.52
35	Sfi1	both	CpG 9	CpG_9.10	CpG 9.10	chr11:3093473-3093475	NA	0.65	0.56	0.67	0.67	0.62	NA	NA	NA	NA	NA	0.63	NA	NA	NA	0.58	0.48	0.57	0.59	0.59
35	Sfi1	both	CpG 10	CpG_9.10	CpG 9.10	chr11:3093475-3093477	NA	0.65	0.56	0.67	0.67	0.62	NA	NA	NA	NA	NA	0.63	NA	NA	NA	0.58	0.48	0.57	0.59	0.59
35	Sfi1	both	CpG 11	CpG_11.12.13	CpG 11.12.13	chr11:3093480-3093482	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 12	CpG_11.12.13	CpG 11.12.13	chr11:3093482-3093484	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 13	CpG_11.12.13	CpG 11.12.13	chr11:3093485-3093487	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 14	CpG_14	CpG 14	chr11:3093511-3093513	0.8	0.82	0.77	0.8	0.81	0.81	0.7	NA	0.66	0.72	0.7	0.71	0.75	0.72	0.35	0.33	0.33	0.3	0.34	0.34
35	Sfi1	both	CpG 15	CpG_15	CpG 15	chr11:3093550-3093552	1	1	1	1	1	1	1	NA	1	1	1	1	1	0.52	0.5	0.43	0.38	0.5	0.54	
35	Sfi1	both	CpG 16	CpG_16	CpG 16	chr11:3093560-3093562	0.8	0.82	0.77	0.8	0.81	0.81	0.7	NA	0.66	0.72	0.7	0.71	0.75	0.72	0.35	0.33	0.33	0.3	0.34	0.34
35	Sfi1	both	CpG 17	CpG_17	CpG 17	chr11:3093585-3093587	0.8	0.83	0.81	0.78	0.8	0.81	0.68	NA	0.66	0.71	0.7	0.73	0.77	0.72	0.25	0.23	0.23	0.18	0.25	0.26
35	Sfi1	both	CpG 18	CpG_18	CpG 18	chr11:3093598-3093600	0.75	0.78	0.82	0.75	0.72	0.76	0.61	NA	0.49	0.57	0.58	0.63	0.66	0.63	0.13	0.13	0.13	0.1	0.14	0.14
35	Sfi1	both	CpG 19	CpG_19	CpG 19	chr11:3093629-3093631	0.91	0.93	0.95	0.91	0.93	0.92	0.81	NA	0.76	0.81	0.81	0.84	0.87	0.84	0.38	0.36	0.36	0.33	0.35	0.38
35	Sfi1	both	CpG 20	CpG_20	CpG 20	chr11:3093639-3093641	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	Sfi1	both	CpG 21	CpG_21	CpG 21	chr11:3093662-3093664	0.91	0.92	0.91	0.91	0.92	0.92	0.83	NA	0.79	0.84	0.84	0.85	0.87	0.85	0.37	0.35	0.32	0.3	0.34	0.35
35	Sfi1	both	CpG 22	CpG_22.23	CpG 22.23	chr11:3093674-3093676	0.92	0.92	0.93	0.91	0.91	0.91	0.84	NA	0.79	0.82	0.85	0.88	0.88	0.85	0.37	0.36	0.4	0.32	0.33	0.38
35	Sfi1	both	CpG 23	CpG_22.23	CpG 22.23	chr11:3093677-3093679	0.92	0.92	0.93	0.91	0.91	0.91	0.84	NA	0.79	0.82	0.85	0.88	0.88	0.85	0.37	0.36	0.4	0.32	0.33	0.38
35	Sfi1	both	CpG 24	CpG_24	CpG 24	chr11:3093687-3093689	0.98	1	1	0.97	0.97	0.98	0.92	NA	0.92	0.95	0.94	0.93	0.98	0.95	0.51	0.51	0.49	0.45	0.47	0.51
35	Sfi1	both	CpG 25	CpG_25	CpG 25	chr11:3093700-3093702	0.74	0.82	0.85	0.95	0.89	0.84	0.79	NA	NA	0.81	0.9	0.79	NA	NA	NA	0.51	0.43	0.51	0.48	0.52

**Supplemental Table S6**  
**Epityper Methylation Ratios (Reduced Set: BMM)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male BMM			C57BL/6 female BMM			F1 (mother BALB/c) female BMM				BALB/c male BMM									
							(1)	(2)	(3)	(1)	(2)	(3)	(A1)	(A2)	(A3)	(B1)	(B2)	(C1)	(C2)	(C4)	(1)	(2)	(3)			
35	Sfi1	both	CpG 26	CpG_26	CpG 26	chr11:3093783-3093785	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
37	Sfi1	both	CpG 1	CpG_1	CpG 1	chr11:3093387-3093389	0.05	0.02	0.08	NA	NA	0.05	0.02	0.03	0.03	0.03	0.02	NA	0.02	0.03	0.02	0.02	0.05	0.04	0.05	0.04
37	Sfi1	both	CpG 2	CpG_2	CpG 2	chr11:3093357-3093359	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
37	Sfi1	both	CpG 3	CpG_3	CpG 3	chr11:3093350-3093352	0.05	0.02	0.08	NA	NA	0.05	0.02	0.03	0.03	0.03	0.02	NA	0.02	0.03	0.02	0.02	0.05	0.04	0.05	0.04
37	Sfi1	both	CpG 4	CpG_4	CpG 4	chr11:3093342-3093344	0.08	0	0.11	NA	NA	0.07	0.04	0.01	0.17	0.03	0.01	NA	0.05	0	0.03	0.13	0.05	0.05	0.04	0.03
37	Sfi1	both	CpG 5	CpG_5,6	CpG 5,6	chr11:3093320-3093322	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
37	Sfi1	both	CpG 6	CpG_5,6	CpG 5,6	chr11:3093312-3093314	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
37	Sfi1	both	CpG 7	CpG_7	CpG 7	chr11:3093298-3093300	0.01	0.03	0.03	NA	NA	0	0	0	0	0	0	NA	0	0	0	0	0.01	0	0	0
37	Sfi1	both	CpG 8	CpG_8,9,10	CpG 8,9,10	chr11:3093293-3093295	0.06	0.03	0.02	NA	NA	0.05	0	0.02	0.01	0.03	0.02	NA	0.04	0.02	0	0.02	0.01	0	0	0
37	Sfi1	both	CpG 9	CpG_8,9,10	CpG 8,9,10	chr11:3093291-3093293	0.06	0.03	0.02	NA	NA	0.05	0	0.02	0.01	0.03	0.02	NA	0.04	0.02	0	0.02	0.01	0	0	0
37	Sfi1	both	CpG 10	CpG_8,9,10	CpG 8,9,10	chr11:3093289-3093291	0.06	0.03	0.02	NA	NA	0.05	0	0.02	0.01	0.03	0.02	NA	0.04	0.02	0	0.02	0.01	0	0	0
37	Sfi1	both	CpG 11	CpG_11,12	CpG 11,12	chr11:3093264-3093266	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
37	Sfi1	both	CpG 12	CpG_11,12	CpG 11,12	chr11:3093255-3093257	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
37	Sfi1	both	CpG 13	CpG_13	CpG 13	chr11:3093189-3093191	0.02	0.04	0.04	NA	NA	0.02	0	0	0	0.01	0	NA	0	0.01	0	0	0	0	0	0
37	Sfi1	both	CpG 14	CpG_14	CpG 14	chr11:3093179-3093181	NA	0	0	NA	NA	0.03	0.03	0.03	0	0	0	NA	0	0	0	0	0	0	0	0
37	Sfi1	both	CpG 15	CpG_15,16	CpG 15,16	chr11:3093170-3093172	0.02	0	0.01	NA	NA	0	0	0	0	0	0	NA	0	0	0	0	0.01	0	0	0
37	Sfi1	both	CpG 16	CpG_15,16	CpG 15,16	chr11:3093166-3093168	0.02	0	0.01	NA	NA	0	0	0	0	0	0	NA	0	0	0	0	0.01	0	0	0
37	Sfi1	both	CpG 17	CpG_17,18	CpG 17,18	chr11:3093158-3093160	0.13	0.02	0.22	NA	NA	0.12	0.03	0.05	0.03	0.03	0.02	NA	0.06	0.1	0.03	0.02	0.16	0.09	0.1	0.09
37	Sfi1	both	CpG 18	CpG_17,18	CpG 17,18	chr11:3093154-3093156	0.13	0.02	0.22	NA	NA	0.12	0.03	0.05	0.03	0.03	0.02	NA	0.06	0.1	0.03	0.02	0.16	0.09	0.1	0.09
37	Sfi1	both	CpG 19	CpG_19	CpG 19	chr11:3093146-3093148	0.05	0.04	0.06	NA	NA	0.01	0	0.02	0.15	0.02	0.1	NA	0.01	0.01	0.01	0.01	0.02	0.01	0.04	0.02
37	Sfi1	both	CpG 20	CpG_20,21	CpG 20,21	chr11:3093136-3093138	0.21	0.19	0.2	NA	NA	0.18	0.19	0.19	0.19	0.2	0.18	NA	0.19	0.22	0.19	0.2	0.19	0.2	0.19	0.18
37	Sfi1	both	CpG 21	CpG_20,21	CpG 20,21	chr11:3093134-3093136	0.21	0.19	0.2	NA	NA	0.18	0.19	0.19	0.19	0.2	0.18	NA	0.19	0.22	0.19	0.2	0.19	0.2	0.19	0.18
37	Sfi1	both	CpG 22	CpG_22	CpG 22	chr11:3093085-3093087	0.05	0.01	0.06	NA	NA	0.03	0	0.01	0	0	0	NA	0	0.02	0	0	0.02	0.01	0.01	0.01
37	Sfi1	both	CpG 23	CpG_23,24	CpG 23,24	chr11:3093065-3093067	0.06	0.03	0.05	NA	NA	0.04	0.04	0.03	0.01	0.01	0.02	NA	0.03	0.04	0.04	0.02	0.05	0.01	0.03	0.03
37	Sfi1	both	CpG 24	CpG_23,24	CpG 23,24	chr11:3093058-3093060	0.06	0.03	0.05	NA	NA	0.04	0.04	0.03	0.01	0.01	0.02	NA	0.03	0.04	0.04	0.02	0.05	0.01	0.03	0.03
37	Sfi1	both	CpG 25	CpG_25	CpG 25	chr11:3093044-3093046	0.04	0.03	0.04	NA	NA	0.04	0	0.01	0.01	0	0	NA	0	0	0	0.01	0	0	0.02	0.02
37	Sfi1	both	CpG 26	CpG_26,27	CpG 26,27	chr11:3093034-3093036	0.23	0.28	0.24	NA	NA	0.24	0.03	0.09	0.15	0.14	0.3	NA	0.08	0.18	0.12	0.08	0.1	0.03	0.08	0.13
37	Sfi1	both	CpG 27	CpG_26,27	CpG 26,27	chr11:3093030-3093032	0.23	0.28	0.24	NA	NA	0.24	0.03	0.09	0.15	0.14	0.3	NA	0.08	0.18	0.12	0.08	0.1	0.03	0.08	0.13
37	Sfi1	both	CpG 28	CpG_28,29	CpG 28,29	chr11:3093014-3093016	0.12	0.09	0.17	NA	NA	0.11	0.1	0.08	0.09	0.08	0.07	NA	0.11	0.09	0.09	0.1	0.13	0.09	0.11	0.09
37	Sfi1	both	CpG 29	CpG_28,29	CpG 28,29	chr11:3093009-3093011	0.12	0.09	0.17	NA	NA	0.11	0.1	0.08	0.09	0.08	0.07	NA	0.11	0.09	0.09	0.1	0.13	0.09	0.11	0.09
37	Sfi1	both	CpG 30	CpG_30	CpG 30	chr11:3093000-3093002	0.06	0.01	0.04	NA	NA	0.04	0	0	0	0	0	NA	0	0	0	0.01	0	0	0.01	0
37b	Sfi1 (ps)	both	CpG 1	CpG_1	CpG 1		0.69	0.69	0.69	0.67	0.67	0.69	0.48	0.47	0.43	0.49	0.5	0.46	0.54	0.52	0.13	0.1	0.15	0.08	0.1	0.09
37b	Sfi1 (ps)	both	CpG 2	CpG_2	CpG 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
37b	Sfi1 (ps)	both	CpG 3	CpG_3	CpG 3		0.69	0.69	0.69	0.67	0.67	0.69	0.48	0.47	0.43	0.49	0.5	0.46	0.54	0.52	0.13	0.1	0.15	0.08	0.1	0.09

**Supplemental Table S6**  
**Epityper Methylation Ratios (Reduced Set: BMM)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male BMM			F1 (mother BALB/c) female BMM			F1 (mother C57BL/6) female BMM			BALB/c male BMM										
							(1)	(2)	(3)	(A1)	(A2)	(A3)	(B1)	(B2)	(C1)	(C2)	(C4)	(1)	(2)	(3)						
37b	Sfi1 (ps)	both	CpG 4	CpG_4	CpG 4		0.89	0.86	0.9	0.74	0.87	0.83	0.58	0.58	0.62	0.61	0.6	0.65	0.72	0.65	0.11	0.08	0.15	0.04	0.07	0.09
37b	Sfi1 (ps)	both	CpG 5	CpG_5	CpG 5		0.84	0.82	0.72	0.73	0.71	0.74	0.6	0.65	0.63	0.72	0.72	0.65	0.75	0.75	0.18	0.14	0.13	0.09	0.12	0.12
37b	Sfi1 (ps)	both	CpG 6	CpG_6	CpG 6		0.95	0.95	0.96	0.95	0.95	0.94	0.81	0.81	0.76	0.84	0.86	0.82	0.89	0.87	0.17	0.14	0.16	0.09	0.1	0.12
37b	Sfi1 (ps)	both	CpG 7	CpG_7,8	CpG 7,8		0.93	0.93	0.91	0.9	0.88	0.89	0.73	0.72	0.68	0.75	0.75	0.72	0.82	0.79	0.14	0.12	0.12	0.06	0.09	0.1
37b	Sfi1 (ps)	both	CpG 8	CpG_7,8	CpG 7,8		0.93	0.93	0.91	0.9	0.88	0.89	0.73	0.72	0.68	0.75	0.75	0.72	0.82	0.79	0.14	0.12	0.12	0.06	0.09	0.1
37b	Sfi1 (ps)	both	CpG 9	CpG_9,10,11	CpG 9,10,11		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
37b	Sfi1 (ps)	both	CpG 10	CpG_9,10,11	CpG 9,10,11		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
37b	Sfi1 (ps)	both	CpG 11	CpG_9,10,11	CpG 9,10,11		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
37b	Sfi1 (ps)	both	CpG 12	CpG_12	CpG 12		0.66	0.69	0.67	0.64	0.65	0.64	0.39	0.4	0.35	0.41	0.41	0.47	0.51	0.4	0.03	0.03	0.03	0.01	0.01	0.03
37b	Sfi1 (ps)	both	CpG 13	CpG_13	CpG 13		0.81	0.81	0.76	0.72	0.74	0.76	NA	0.59	0.36	0.61	0.59	NA	0.7	NA	0.05	0.07	0.04	0	0.02	0.05
37b	Sfi1 (ps)	both	CpG 14	CpG_14,15	CpG 14,15		0.86	0.88	0.86	0.85	0.87	0.87	0.67	0.68	0.67	0.71	0.74	0.72	0.78	0.76	0.13	0.09	0.11	0.06	0.08	0.08
37b	Sfi1 (ps)	both	CpG 15	CpG_14,15	CpG 14,15		0.86	0.88	0.86	0.85	0.87	0.87	0.67	0.68	0.67	0.71	0.74	0.72	0.78	0.76	0.13	0.09	0.11	0.06	0.08	0.08
37b	Sfi1 (ps)	both	CpG 16	CpG_16,17	CpG 16,17		0.75	0.74	0.77	0.76	0.76	0.75	0.69	0.66	0.66	0.66	0.69	0.67	0.7	0.71	0.25	0.22	0.35	0.16	0.16	0.2
37b	Sfi1 (ps)	both	CpG 17	CpG_16,17	CpG 16,17		0.75	0.74	0.77	0.76	0.76	0.75	0.69	0.66	0.66	0.66	0.69	0.67	0.7	0.71	0.25	0.22	0.35	0.16	0.16	0.2
37b	Sfi1 (ps)	both	CpG 18	CpG_18	CpG 18		0.97	1	0.97	0.85	0.9	0.88	0.76	0.74	0.73	0.73	0.79	0.7	0.97	0.82	0.18	0.13	0.15	0.08	0.1	0.12
37b	Sfi1 (ps)	both	CpG 19	CpG_19,20	CpG 19,20		0.8	0.82	0.8	0.77	0.75	0.78	0.62	0.59	0.58	0.6	0.63	0.6	0.68	0.65	0.11	0.09	0.14	0.07	0.1	0.12
37b	Sfi1 (ps)	both	CpG 20	CpG_19,20	CpG 19,20		0.8	0.82	0.8	0.77	0.75	0.78	0.62	0.59	0.58	0.6	0.63	0.6	0.68	0.65	0.11	0.09	0.14	0.07	0.1	0.12
37b	Sfi1 (ps)	both	CpG 21	CpG_21	CpG 21		0.82	0.87	0.86	0.85	0.85	0.85	0.79	0.75	0.74	0.77	0.79	0.77	0.81	0.81	0.4	0.37	0.37	0.34	0.36	0.37
37b	Sfi1 (ps)	both	CpG 22	CpG_22,23	CpG 22,23		0.8	0.83	0.8	0.81	0.78	0.79	0.72	0.74	0.68	0.76	0.76	0.7	0.78	0.76	0.21	0.15	0.21	0.12	0.11	0.15
37b	Sfi1 (ps)	both	CpG 23	CpG_22,23	CpG 22,23		0.8	0.83	0.8	0.81	0.78	0.79	0.72	0.74	0.68	0.76	0.76	0.7	0.78	0.76	0.21	0.15	0.21	0.12	0.11	0.15
37b	Sfi1 (ps)	both	CpG 24	CpG_24	CpG 24		0.9	0.89	0.95	0.88	0.9	0.91	0.76	0.73	0.69	0.73	0.74	0.73	0.82	0.79	0.15	0.1	0.15	0.05	0.07	0.1
37b	Sfi1 (ps)	both	CpG 25	CpG_25,26	CpG 25,26		0.38	0.42	0.39	0.38	0.38	0.4	0.33	0.34	0.27	0.32	0.34	0.32	0.39	0.35	0.07	0.08	0.05	0.04	0.03	0.05
37b	Sfi1 (ps)	both	CpG 26	CpG_25,26	CpG 25,26		0.38	0.42	0.39	0.38	0.38	0.4	0.33	0.34	0.27	0.32	0.34	0.32	0.39	0.35	0.07	0.08	0.05	0.04	0.03	0.05
37b	Sfi1 (ps)	both	CpG 27	CpG_27	CpG 27		0.82	0.82	0.79	0.76	0.8	0.81	0.67	0.73	0.69	0.74	0.72	0.68	0.77	0.77	0.17	0.15	0.09	0.1	0.1	0.13
37b	Sfi1 (ps)	both	CpG 28	CpG_28	CpG 28		0.81	0.85	0.83	0.8	0.83	0.83	0.71	0.72	0.68	0.71	0.73	0.73	0.78	0.75	0.13	0.09	0.11	0.06	0.08	0.1
37b	Sfi1 (ps)	both	CpG 29	CpG_29,30	CpG 29,30		0.41	0.39	0.42	0.4	0.42	0.4	NA	0.32	0.34	0.35	0.36	0.34	0.38	0.35	0.07	0	0.06	0.03	0.04	0.06
37b	Sfi1 (ps)	both	CpG 30	CpG_29,30	CpG 29,30		0.41	0.39	0.42	0.4	0.42	0.4	NA	0.32	0.34	0.35	0.36	0.34	0.38	0.35	0.07	0	0.06	0.03	0.04	0.06
38	Slc13a3	both	CpG 1	CpG_1	CpG 1	chr2:165164150-165164152	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
38	Slc13a3	both	CpG 2	CpG_2	CpG 2	chr2:165164194-165164196	0.4	0.38	0.36	0.29	0.3	0.3	0.29	0.32	0.3	0.3	0.32	0.27	0.26	NA	0.29	0.31	0.27	0.23	0.28	0.3
38	Slc13a3	both	CpG 3	CpG_3	CpG 3	chr2:165164225-165164227	0.12	0.12	0.11	0.02	0.07	0.09	0.09	0.08	0.04	0.11	0.06	0.07	0.09	NA	0.07	0.08	0.08	0.04	0.05	0.08
38	Slc13a3	both	CpG 4	CpG_4	CpG 4	chr2:165164236-165164238	0.07	0.05	0.09	0.05	0.05	0.06	0.04	0.04	0.04	0.03	0.03	0.07	0.05	NA	0.04	0.04	0.07	0.04	0.04	0.04
38	Slc13a3	both	CpG 5	CpG_5	CpG 5	chr2:165164241-165164243	0	0.01	0.01	0	0	0	0	0	0	0	0.01	0	0	NA	0	0	0.01	0	0	0
38	Slc13a3	both	CpG 6	CpG_6	CpG 6	chr2:165164250-165164252	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38	Slc13a3	both	CpG 7	CpG_7	CpG 7	chr2:165164261-165164263	0.08	0.07	0.13	0.12	0.07	0.07	0.04	0.06	0.07	0.05	0.06	0.06	0.06	NA	0.06	0.04	0.08	0.02	0.08	0.08

## Supplemental Table S6

### Epityper Methylation Ratios (Reduced Set: BMM)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6						BALB/c				F1				F2					
							C57BL/6 male BMM (1)	C57BL/6 male BMM (2)	C57BL/6 male BMM (3)	C57BL/6 female BMM (1)	C57BL/6 female BMM (2)	C57BL/6 female BMM (3)	F1 (mother BALB/c) female BMM (A1)	F1 (mother BALB/c) female BMM (A2)	F1 (mother BALB/c) male BMM (A3)	F1 (mother BALB/c) male BMM (B1)	F1 (mother BALB/c) male BMM (B2)	F1 (mother C57BL/6) female BMM (C1)	F1 (mother C57BL/6) female BMM (C2)	F1 (mother C57BL/6) male BMM (C4)	BALB/c male BMM (1)	BALB/c male BMM (2)	BALB/c male BMM (3)	BALB/c female BMM (1)	BALB/c female BMM (2)	BALB/c female BMM (3)
38	Slc13a3	both	CpG 8	CpG_8	CpG 8	chr2:165164269-165164271	0.27	0.29	0.27	0.28	0.21	0.21	0.22	0.23	0.21	0.19	0.17	0.19	0.22	NA	0.15	0.1	0.12	0.11	0.1	0.11
38	Slc13a3	both	CpG 9	CpG_9	CpG 9	chr2:165164294-165164296	0.19	0.26	0.19	0.16	0.21	0.16	0.08	0.15	0.07	0.13	0.09	0.12	0.16	NA	0.13	0.1	0.12	0.09	0.09	0.1
38	Slc13a3	both	CpG 10	CpG_10.11.12.13	CpG 10.11.12.13	chr2:165164319-165164321	0.25	0.22	0.26	0.26	0.23	0.23	0.15	0.17	0.13	0.15	0.12	0.16	0.13	NA	0.1	0.09	0.11	0.09	0.08	0.08
38	Slc13a3	both	CpG 11	CpG_10.11.12.13	CpG 10.11.12.13	chr2:165164322-165164324	0.25	0.22	0.26	0.26	0.23	0.23	0.15	0.17	0.13	0.15	0.12	0.16	0.13	NA	0.1	0.09	0.11	0.09	0.08	0.08
38	Slc13a3	both	CpG 12	CpG_10.11.12.13	CpG 10.11.12.13	chr2:165164324-165164326	0.25	0.22	0.26	0.26	0.23	0.23	0.15	0.17	0.13	0.15	0.12	0.16	0.13	NA	0.1	0.09	0.11	0.09	0.08	0.08
38	Slc13a3	both	CpG 13	CpG_10.11.12.13	CpG 10.11.12.13	chr2:165164326-165164328	0.25	0.22	0.26	0.26	0.23	0.23	0.15	0.17	0.13	0.15	0.12	0.16	0.13	NA	0.1	0.09	0.11	0.09	0.08	0.08
38	Slc13a3	both	CpG 14	CpG_14.15	CpG 14.15	chr2:165164348-165164350	0.17	0.17	0.19	0.16	0.16	0.15	0.1	0.12	0.1	0.11	0.09	0.11	0.1	NA	0.08	0.07	0.1	0.06	0.07	0.06
38	Slc13a3	both	CpG 15	CpG_14.15	CpG 14.15	chr2:165164351-165164353	0.17	0.17	0.19	0.16	0.16	0.15	0.1	0.12	0.1	0.11	0.09	0.11	0.1	NA	0.08	0.07	0.1	0.06	0.07	0.06
38	Slc13a3	both	CpG 16	CpG_16.17	CpG 16.17	chr2:165164357-165164359	0.17	0.17	0.19	0.16	0.16	0.15	0.1	0.12	0.1	0.11	0.09	0.11	0.1	NA	0.08	0.07	0.1	0.06	0.07	0.06
38	Slc13a3	both	CpG 17	CpG_16.17	CpG 16.17	chr2:165164360-165164362	0.17	0.17	0.19	0.16	0.16	0.15	0.1	0.12	0.1	0.11	0.09	0.11	0.1	NA	0.08	0.07	0.1	0.06	0.07	0.06
38	Slc13a3	both	CpG 18	CpG_18.19.20	CpG 18.19.20	chr2:165164367-165164369	0.19	0.2	0.23	0.2	0.18	0.17	0.14	0.17	0.12	0.16	0.13	0.15	0.13	NA	0.14	0.11	0.16	0.13	0.12	0.1
38	Slc13a3	both	CpG 19	CpG_18.19.20	CpG 18.19.20	chr2:165164369-165164371	0.19	0.2	0.23	0.2	0.18	0.17	0.14	0.17	0.12	0.16	0.13	0.15	0.13	NA	0.14	0.11	0.16	0.13	0.12	0.1
38	Slc13a3	both	CpG 20	CpG_18.19.20	CpG 18.19.20	chr2:165164371-165164373	0.19	0.2	0.23	0.2	0.18	0.17	0.14	0.17	0.12	0.16	0.13	0.15	0.13	NA	0.14	0.11	0.16	0.13	0.12	0.1
38	Slc13a3	both	CpG 21	CpG_21	CpG 21	chr2:165164375-165164377	0.07	0.11	0.07	0.07	0.04	0.05	0.04	0.04	0.04	0.06	0.05	0.03	0.05	NA	0.03	0.03	0.04	0.03	0.01	0.01
38	Slc13a3	both	CpG 22	CpG_22.23	CpG 22.23	chr2:165164389-165164391	0.11	0.13	0.17	0.11	0.11	0.11	0.07	0.07	0.07	0.06	0.04	0.07	0.07	NA	0.03	0.04	0.07	0.04	0.03	0.04
38	Slc13a3	both	CpG 23	CpG_22.23	CpG 22.23	chr2:165164394-165164396	0.11	0.13	0.17	0.11	0.11	0.11	0.07	0.07	0.07	0.06	0.04	0.07	0.07	NA	0.03	0.04	0.07	0.04	0.03	0.04
38	Slc13a3	both	CpG 24	CpG_24.25.26	CpG 24.25.26	chr2:165164408-165164410	0.13	0.14	0.19	0.16	0.15	0.15	0.1	0.08	0.14	0.11	0.1	0.11	0.11	NA	0.09	0.1	0.16	0.11	0.11	0.12
38	Slc13a3	both	CpG 25	CpG_24.25.26	CpG 24.25.26	chr2:165164412-165164414	0.13	0.14	0.19	0.16	0.15	0.15	0.1	0.08	0.14	0.11	0.1	0.11	0.11	NA	0.09	0.1	0.16	0.11	0.11	0.12
38	Slc13a3	both	CpG 26	CpG_24.25.26	CpG 24.25.26	chr2:165164415-165164417	0.13	0.14	0.19	0.16	0.15	0.15	0.1	0.08	0.14	0.11	0.1	0.11	0.11	NA	0.09	0.1	0.16	0.11	0.11	0.12
38	Slc13a3	both	CpG 27	CpG_27	CpG 27	chr2:165164441-165164443	0.27	0.29	0.27	0.28	0.21	0.21	0.22	0.23	0.21	0.19	0.17	0.19	0.22	NA	0.15	0.1	0.12	0.11	0.1	0.11
38	Slc13a3	both	CpG 28	CpG_28	CpG 28	chr2:165164456-165164458	0.19	0.26	0.19	0.16	0.21	0.16	0.08	0.15	0.07	0.13	0.09	0.12	0.16	NA	0.13	0.1	0.12	0.09	0.09	0.1
38	Slc13a3	both	CpG 29	CpG_29.30.31.32	CpG 29.30.31.32	chr2:165164462-165164464	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38	Slc13a3	both	CpG 30	CpG_29.30.31.32	CpG 29.30.31.32	chr2:165164467-165164469	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38	Slc13a3	both	CpG 31	CpG_29.30.31.32	CpG 29.30.31.32	chr2:165164472-165164474	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38	Slc13a3	both	CpG 32	CpG_29.30.31.32	CpG 29.30.31.32	chr2:165164474-165164476	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
42	Slc27a6	both	CpG 1	CpG_1	CpG 1	chr18:58682221-58682223	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
42	Slc27a6	both	CpG 2	CpG_2	CpG 2	chr18:58682185-58682187	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
42	Slc27a6	both	CpG 3	CpG_3.4	CpG 3.4	chr18:58682179-58682181	0.04	0.04	0.05	0.06	0.06	0.05	0.09	0.08	0.05	0.08	0.07	0.06	0.08	0.07	0.11	0.1	0.13	0.12	0.12	0.19
42	Slc27a6	both	CpG 4	CpG_3.4	CpG 3.4	chr18:58682173-58682175	0.04	0.04	0.05	0.06	0.06	0.05	0.09	0.08	0.05	0.08	0.07	0.06	0.08	0.07	0.11	0.1	0.13	0.12	0.12	0.19
42	Slc27a6	both	CpG 5	CpG_5	CpG 5	chr18:58682149-58682151	0.04	0.05	0.07	0.08	0.06	0.05	0.18	0.14	0.08	0.13	0.13	0.11	0.12	0.14	0.17	0.19	0.21	0.21	0.23	0.34
42	Slc27a6	both	CpG 6	CpG_6	CpG 6	chr18:58682133-58682135	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
42	Slc27a6	both	CpG 7	CpG_7	CpG 7	chr18:58682113-58682115	0.08	0.09	0.1	0.1	0.1	0.1	0.22	0.21	0.15	0.2	0.16	0.18	0.18	0.19	0.27	0.27	0.35	0.29	0.4	0.41
42	Slc27a6	both	CpG 8	CpG_8.9	CpG 8.9	chr18:58682083-58682085	0.13	0.1	0.17	0.15	0.15	0.11	0.24	0.23	0.18	0.22	0.18	0.19	0.2	0.23	0.31	0.32	0.39	0.33	0.37	0.41
42	Slc27a6	both	CpG 9	CpG_8.9	CpG 8.9	chr18:58682077-58682079	0.13	0.1	0.17	0.15	0.15	0.11	0.24	0.23	0.18	0.22	0.18	0.19	0.2	0.23	0.31	0.32	0.39	0.33	0.37	0.41

**Supplemental Table S6**  
**Epityper Methylation Ratios (Reduced Set: BMM)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.		CpG	CpG position (C57BL/6; mm8)	C57BL/6						F1 (mother)				BALB/c										
			CpG_10	CpG_11			CpG_12	CpG_1	CpG_2	CpG_3	CpG_4	CpG_5	CpG_6	CpG_7	CpG_8	CpG_9	CpG_10	CpG_11	CpG_12	CpG_1	CpG_2	CpG_3	CpG_4				
42	Slc27a6	both	CpG 10	CpG_10	CpG 10	chr18:58682065-58682067	0.19	0.12	0.15	0.16	0.19	0.14	0.28	0.26	0.21	0.25	0.22	0.24	0.22	0.26	0.36	0.36	0.4	0.35	0.43	0.47	
42	Slc27a6	both	CpG 11	CpG_11	CpG 11.12	chr18:58682036-58682038	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
42	Slc27a6	both	CpG 12		CpG 11.12																						
44	Slc27a6	both	CpG 1	CpG_1	CpG 1	chr18:58686452-58686454	0.07	0.04	0.1	0.03	0.02	0.04	0.41	0.52	0.24	0.31	0.45	0.51	0.41	0.64	0.91	0.94	0.9	0.9	0.9	0.74	
44	Slc27a6	both	CpG 2	CpG_2	CpG 2	chr18:58686444-58686446	0.19	0.15	0.15	0.1	0.11	0.15	0.45	0.51	0.32	0.42	0.43	0.49	0.5	0.58	0.89	0.88	0.9	0.91	0.86	0.89	
44	Slc27a6	both	CpG 3	CpG_3	CpG 3	chr18:58686437-58686439	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
44	Slc27a6	both	CpG 4	CpG_4	CpG 4	chr18:58686398-58686400	0.19	0.15	0.15	0.1	0.11	0.15	0.45	0.51	0.32	0.42	0.43	0.49	0.5	0.58	0.89	0.88	0.9	0.91	0.86	0.89	
44	Slc27a6	both	CpG 5	CpG_5	CpG 5	chr18:58686387-58686389	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
44	Slc27a6	both	CpG 6	CpG_6,7	CpG 6.7	chr18:58686372-58686374	0.24	0.2	0.2	0.19	0.19	0.19	0.45	0.55	0.33	0.48	0.47	0.57	0.55	0.51	0.89	0.84	0.72	0.72	0.78	0.91	
44	Slc27a6	both	CpG 7	CpG_6,7	CpG 6.7	chr18:58686370-58686372	0.24	0.2	0.2	0.19	0.19	0.19	0.45	0.55	0.33	0.48	0.47	0.57	0.55	0.51	0.89	0.84	0.72	0.72	0.78	0.91	
44	Slc27a6	both	CpG 8	CpG_8,9	CpG 8.9	chr18:58686366-58686368	0.24	0.2	0.2	0.19	0.19	0.19	0.45	0.55	0.33	0.48	0.47	0.57	0.55	0.51	0.89	0.84	0.72	0.72	0.78	0.91	
44	Slc27a6	both	CpG 9	CpG_8,9	CpG 8.9	chr18:58686364-58686366	0.24	0.2	0.2	0.19	0.19	0.19	0.45	0.55	0.33	0.48	0.47	0.57	0.55	0.51	0.89	0.84	0.72	0.72	0.78	0.91	
44	Slc27a6	both	CpG 10	CpG_10	CpG 10	chr18:58686343-58686345	0.03	0.08	0.07	0.07	0.12	0.04	0.4	0.5	0.23	0.35	0.37	0.43	0.39	0.48	0.69	0.7	0.76	0.77	0.74	0.77	
44	Slc27a6	both	CpG 11	CpG_11	CpG 11	chr18:58686206-58686208	0.39	0.38	0.34	0.32	0.38	0.31	0.57	0.65	0.36	0.59	0.63	0.72	0.73	0.75	0.92	0.86	0.87	0.94	0.9	0.85	
49	Zfp568	both	CpG 1	CpG_1	CpG 1	chr7:29692488-29692490	0.05	0.02	0.1	0.03	0.04	0.06	0.03	NA	NA	0.03	0.03	0.04	0.04	0.02	0.03	0.07	0.04	0.1	0.05	0.05	0.04
49	Zfp568	both	CpG 2	CpG_2,3	CpG 2.3	chr7:29692497-29692499	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 3	CpG_2,3	CpG 2.3	chr7:29692515-29692517	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 4	CpG_4	CpG 4	chr7:29692525-29692527	0.03	0.01	0.04	0.02	0.03	0.02	0.01	NA	NA	0.01	0	0	0	0	0	0.03	0.02	0.04	0.03	0.03	0.03
49	Zfp568	both	CpG 5	CpG_4,5	CpG 5	chr7:29692531-29692533	0.03	0.01	0.04	0.02	0.03	0.02	0.01	NA	NA	0.01	0	0	0	0	0	0.03	0.02	0.04	0.03	0.03	0.04
49	Zfp568	both	CpG 6	CpG_6	CpG 5	chr7:29692543-29692545	0.07	0.05	0.04	0.04	0.05	0.04	0.05	NA	NA	0.06	0.07	0.04	0.03	0.07	0.07	0.07	0.03	0.05	0.05	0.04	0.04
49	Zfp568	both	CpG 7	CpG_7,8,9,10,11	CpG 6.7,8,9,10	chr7:29692550-29692552	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 8	CpG_7,8,9,10,11	CpG 6.7,8,9,10	chr7:29692558-29692560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 9	CpG_7,8,9,10,11	CpG 6.7,8,9,10	chr7:29692561-29692563	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 10	CpG_7,8,9,10,11	CpG 6.7,8,9,10	chr7:29692564-29692566	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 11	CpG_7,8,9,10,11	CpG 6.7,8,9,10	chr7:29692567-29692569	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 12	CpG_12,13,14,15	CpG 11.12,13,14	chr7:29692573-29692575	0.08	0.08	0.08	0.07	0.08	0.07	0.08	NA	NA	0.08	0.08	0.07	0.1	0.1	0.11	0.09	0.17	0.12	0.07	0.09	0.09
49	Zfp568	both	CpG 13	CpG_12,13,14,15	CpG 11.12,13,14	chr7:29692578-29692580	0.08	0.08	0.08	0.07	0.08	0.07	0.08	NA	NA	0.08	0.08	0.07	0.1	0.1	0.11	0.09	0.17	0.12	0.07	0.09	0.09
49	Zfp568	both	CpG 14	CpG_12,13,14,15	CpG 11.12,13,14	chr7:29692581-29692583	0.08	0.08	0.08	0.07	0.08	0.07	0.08	NA	NA	0.08	0.08	0.07	0.1	0.1	0.11	0.09	0.17	0.12	0.07	0.09	0.09
49	Zfp568	both	CpG 15	CpG_12,13,14,15	CpG 11.12,13,14	chr7:29692583-29692585	0.08	0.08	0.08	0.07	0.08	0.07	0.08	NA	NA	0.08	0.08	0.07	0.1	0.1	0.11	0.09	0.17	0.12	0.07	0.09	0.09
49	Zfp568	both	CpG 16	CpG_16,17,18	CpG 15.16,17	chr7:29692604-29692606	0.11	0.07	0.1	0.11	0.12	0.08	0.14	NA	NA	0.18	0.08	0.11	0.13	0.17	0.14	0.08	0.11	0.07	0.05	0.05	0.06
49	Zfp568	both	CpG 17	CpG_16,17,18	CpG 15.16,17	chr7:29692607-29692609	0.11	0.07	0.1	0.11	0.12	0.08	0.14	NA	NA	0.18	0.08	0.11	0.13	0.17	0.14	0.08	0.11	0.07	0.05	0.05	0.06
49	Zfp568	both	CpG 18	CpG_16,17,18	CpG 15.16,17	chr7:29692613-29692615	0.11	0.07	0.1	0.11	0.12	0.08	0.14	NA	NA	0.18	0.08	0.11	0.13	0.17	0.14	0.08	0.11	0.07	0.05	0.05	0.06
49	Zfp568	both	CpG 19	CpG_19	CpG 18	chr7:29692644-29692646	0.16	0.05	0	0.09	0.02	0.02	0.01	NA	NA	0.22	0	0.11	0.11	0.03	0.17	0.19	0	0	0.07	0.06	0.04
49	Zfp568	both	CpG 20	CpG_20	CpG 19	chr7:29692651-29692653	NA	0.08	0	0.02	0.04	0.07	NA	NA	NA	NA	0.03	0.01	0.07	NA	NA	0	0	NA	NA	0	

## Supplemental Table S6 Epityper Methylation Ratios (Reduced Set: BMM)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male BMM			C57BL/6 female BMM			F1 (mother BALB/c)				BALB/c									
							C57BL/6 male BMM (1)	C57BL/6 male BMM (2)	C57BL/6 male BMM (3)	C57BL/6 female BMM (1)	C57BL/6 female BMM (2)	C57BL/6 female BMM (3)	F1 (mother BALB/c) female BMM (A1)	F1 (mother BALB/c) female BMM (A2)	F1 (mother BALB/c) male BMM (A3)	F1 (mother BALB/c) male BMM (B1)	F1 (mother BALB/c) male BMM (B2)	F1 (mother C57BL/6) female BMM (C1)	F1 (mother C57BL/6) female BMM (C2)	F1 (mother C57BL/6) male BMM (C4)	BALB/c male BMM (1)	BALB/c male BMM (2)	BALB/c male BMM (3)	BALB/c female BMM (1)	BALB/c female BMM (2)	BALB/c female BMM (3)
49	Zfp568	both	CpG 21	CpG_21	CpG 20	chr7:29692662-29692664	NA	0.08	0	0.02	0.04	0.07	NA	NA	NA	NA	0.03	0.01	0.07	NA	NA	0	0	0.01	0.06	0.01
49	Zfp568	both	CpG 22	CpG_22.23.24	CpG 21.22.23	chr7:29692674-29692676	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 23	CpG_22.23.24	CpG 21.22.23	chr7:29692679-29692681	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 24	CpG_22.23.24	CpG 21.22.23	chr7:29692681-29692683	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 1	CpG_1		chrX:119220213-119220215	0.02	0.01	0.03	0.11	0.07	0.06	0.07	0.04	0.01	0.06	0.03	0.11	0.08	0.01						
51	3110007F17Rik	C57BL/6	CpG 2	CpG_2		chrX:119220222-119220224	0.02	0.03	0.04	0.06	0.1	0.08	0.08	0.09	NA	NA	NA	0.03	0.02	0.01						
51	3110007F17Rik	C57BL/6	CpG 3	CpG_3.4.5		chrX:119220240-119220242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
51	3110007F17Rik	C57BL/6	CpG 4	CpG_3.4.5		chrX:119220243-119220245	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
51	3110007F17Rik	C57BL/6	CpG 5	CpG_3.4.5		chrX:119220255-119220257	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
51	3110007F17Rik	C57BL/6	CpG 6	CpG_6		chrX:119220269-119220271	0.02	0	0	0.09	0.09	0.08	0.07	0.07	0	0.06	0	0.16	0.08	0.01						
51	3110007F17Rik	C57BL/6	CpG 7	CpG_7		chrX:119220275-119220277	0.07	0.12	0.11	0.29	0.35	0.31	0.24	0.23	NA	0.29	NA	0.26	0.25	0.07						
51	3110007F17Rik	C57BL/6	CpG 8	CpG_8		chrX:119220292-119220294	NA	NA	0.05	0.26	NA	0.32	NA	0.16	NA	NA	NA	0.31	NA	NA						
51	3110007F17Rik	C57BL/6	CpG 9	CpG_9.10.11		chrX:119220299-119220301	0.05	0.07	0.08	0.2	0.18	0.15	0.14	0.14	0.08	0.09	0.05	0.17	0.13	0.06						
51	3110007F17Rik	C57BL/6	CpG 10	CpG_9.10.11		chrX:119220301-119220303	0.05	0.07	0.08	0.2	0.18	0.15	0.14	0.14	0.08	0.09	0.05	0.17	0.13	0.06						
51	3110007F17Rik	C57BL/6	CpG 11	CpG_9.10.11		chrX:119220306-119220308	0.05	0.07	0.08	0.2	0.18	0.15	0.14	0.14	0.08	0.09	0.05	0.17	0.13	0.06						
51	3110007F17Rik	C57BL/6	CpG 12	CpG_12		chrX:119220329-119220331	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
51	3110007F17Rik	C57BL/6	CpG 13	CpG_13.14		chrX:119220361-119220363	0.05	0.07	0.13	0.17	0.15	0.15	0.16	0.14	0.05	0.03	0.07	0.18	0.16	0.04						
51	3110007F17Rik	C57BL/6	CpG 14	CpG_13.14		chrX:119220367-119220369	0.05	0.07	0.13	0.17	0.15	0.15	0.16	0.14	0.05	0.03	0.07	0.18	0.16	0.04						
51	3110007F17Rik	C57BL/6	CpG 15	CpG_15		chrX:119220385-119220387	0.03	0.02	0.03	0.12	0.04	0.07	0.09	0.07	0.02	0.04	0.03	0.13	0.08	0.03						
51	3110007F17Rik	C57BL/6	CpG 16	CpG_16		chrX:119220397-119220399	0.05	0.04	0.09	0.12	0.12	0.1	0.09	0.09	0.04	0.04	0.03	0.16	0.08	0.06						
51	3110007F17Rik	C57BL/6	CpG 17	CpG_17.18.19		chrX:119220403-119220405	0.07	0.04	0.06	0.16	0.12	0.13	0.08	0.12	NA	NA	NA	0.15	0.14	0.02						
51	3110007F17Rik	C57BL/6	CpG 18	CpG_17.18.19		chrX:119220405-119220407	0.07	0.04	0.06	0.16	0.12	0.13	0.08	0.12	NA	NA	NA	0.15	0.14	0.02						
51	3110007F17Rik	C57BL/6	CpG 19	CpG_17.18.19		chrX:119220414-119220416	0.07	0.04	0.06	0.16	0.12	0.13	0.08	0.12	NA	NA	NA	0.15	0.14	0.02						
51	3110007F17Rik	C57BL/6	CpG 20	CpG_20.21		chrX:119220419-119220421	0.07	0.04	0.04	0.17	0.09	0.09	0.1	0.16	0.02	0.08	0.07	0.13	0.12	0.05						
51	3110007F17Rik	C57BL/6	CpG 21	CpG_20.21		chrX:119220428-119220430	0.07	0.04	0.04	0.17	0.09	0.09	0.1	0.16	0.02	0.08	0.07	0.13	0.12	0.05						
51	3110007F17Rik	C57BL/6	CpG 22	CpG_22.23		chrX:119220442-119220444	0	0	0	0.1	0.05	0.06	0.03	0.05	0	0.01	0	0.05	0.11	0						
51	3110007F17Rik	C57BL/6	CpG 23	CpG_22.23		chrX:119220444-119220446	0	0	0	0.1	0.05	0.06	0.03	0.05	0	0.01	0	0.05	0.11	0						
51	3110007F17Rik	C57BL/6	CpG 24	CpG_24		chrX:119220473-119220475	0	0	0	0.13	NA	0.16	0.09	0.08	NA	0.03	NA	0.18	0.05	0						
51	3110007F17Rik	C57BL/6	CpG 25	CpG_25.26.27.28		chrX:119220477-119220479	0.09	0.06	0.1	0.22	0.28	0.21	0.16	0.19	NA	NA	NA	0.23	0.19	0.05						
51	3110007F17Rik	C57BL/6	CpG 26	CpG_25.26.27.28		chrX:119220481-119220483	0.09	0.06	0.1	0.22	0.28	0.21	0.16	0.19	NA	NA	NA	0.23	0.19	0.05						
51	3110007F17Rik	C57BL/6	CpG 27	CpG_25.26.27.28		chrX:119220483-119220485	0.09	0.06	0.1	0.22	0.28	0.21	0.16	0.19	NA	NA	NA	0.23	0.19	0.05						
51	3110007F17Rik	C57BL/6	CpG 28	CpG_25.26.27.28		chrX:119220486-119220488	0.09	0.06	0.1	0.22	0.28	0.21	0.16	0.19	NA	NA	NA	0.23	0.19	0.05						
51	3110007F17Rik	C57BL/6	CpG 29	CpG_29		chrX:119220503-119220505	0.01	0	0	0.13	0.01	0.1	0.07	0.04	0	0	0	0.11	0.1	0.01						
51	3110007F17Rik	C57BL/6	CpG 30	CpG_30		chrX:119220515-119220517	0.01	0.01	0.04	0.08	0.07	0.09	0.06	0.09	0	0.01	0	0.09	0.07	0.02						

## Supplemental Table S6 Epityper Methylation Ratios (Reduced Set: BMM)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male BMM			F1 (mother BALB/c) female BMM			F1 (mother C57BL/6) female BMM			BALB/c male BMM				
							(1)	(2)	(3)	(A1)	(A2)	(A3)	(B1)	(B2)	(C1)	(C2)	(C4)	(1)	(2)	(3)
53	3110007F17Rik	C57BL/6	CpG 1	CpG_1.2		chrX:119220546-119220548	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
53	3110007F17Rik	C57BL/6	CpG 2	CpG_1.2		chrX:119220541-119220543	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
53	3110007F17Rik	C57BL/6	CpG 5	CpG_3		chrX:119220515-119220517	0	0	0	0.13	0.09	0.07	0.26	0.09	0	0	0	0.23	0.2	0
53	3110007F17Rik	C57BL/6	CpG 6	CpG_4		chrX:119220503-119220505	0.01	0.01	0.01	0.12	0.2	0.14	0.1	0.1	NA	NA	NA	0.32	0.13	0.01
53	3110007F17Rik	C57BL/6	CpG 7	CpG_5.6.7		chrX:119220486-119220488	0	0	0.01	0.12	0.19	0.08	0.15	0.14	0.02	0.04	0.04	0.2	0.11	0
53	3110007F17Rik	C57BL/6	CpG 8	CpG_5.6.7		chrX:119220483-119220485	0	0	0.01	0.12	0.19	0.08	0.15	0.14	0.02	0.04	0.04	0.2	0.11	0
53	3110007F17Rik	C57BL/6	CpG 9	CpG_5.6.7		chrX:119220481-119220483	0	0	0.01	0.12	0.19	0.08	0.15	0.14	0.02	0.04	0.04	0.2	0.11	0
53	3110007F17Rik	C57BL/6	CpG 10	CpG_8.9		chrX:119220477-119220479	0.03	0.02	0.09	0.18	0.3	0.19	0.3	0.24	0.14	0.16	0.12	0.4	0.29	0.02
53	3110007F17Rik	C57BL/6	CpG 11	CpG_8.9		chrX:119220473-119220475	0.03	0.02	0.09	0.18	0.3	0.19	0.3	0.24	0.14	0.16	0.12	0.4	0.29	0.02
53	3110007F17Rik	C57BL/6	CpG 12	CpG_10.11		chrX:119220444-119220446	0.06	0.04	0.02	0.16	0.17	0.12	0.26	0.17	0.08	0.08	0.09	0.24	0.17	0.05
53	3110007F17Rik	C57BL/6	CpG 13	CpG_10.11		chrX:119220442-119220444	0.06	0.04	0.02	0.16	0.17	0.12	0.26	0.17	0.08	0.08	0.09	0.24	0.17	0.05
53	3110007F17Rik	C57BL/6	CpG 14	CpG_12		chrX:119220428-119220430	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 15	CpG_13.14		chrX:119220419-119220421	0.1	0.04	0.03	0.18	0.34	0.11	0.47	0.13	0.08	0.1	0.08	0.32	0.23	0.04
53	3110007F17Rik	C57BL/6	CpG 16	CpG_13.14		chrX:119220414-119220416	0.1	0.04	0.03	0.18	0.34	0.11	0.47	0.13	0.08	0.1	0.08	0.32	0.23	0.04
53	3110007F17Rik	C57BL/6	CpG 17	CpG_15.16.17.18		chrX:119220405-119220407	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 18	CpG_15.16.17.18		chrX:119220403-119220405	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 19	CpG_15.16.17.18		chrX:119220397-119220399	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 20	CpG_15.16.17.18		chrX:119220385-119220387	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 21	CpG_19		chrX:119220367-119220369	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 22	CpG_20		chrX:119220361-119220363	0.12	0.14	0.13	0.19	0.21	0.21	0.34	0.27	0.13	0.21	0.13	0.31	0.28	0.12
53	3110007F17Rik	C57BL/6	CpG 23	CpG_21		chrX:119220329-119220331	0.13	0.05	0.01	0.11	0.12	0.1	0.14	0.37	0.05	0.25	0.13	0.32	0.29	0.09
53	3110007F17Rik	C57BL/6	CpG 24	CpG_22.23.24.25		chrX:119220306-119220308	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 25	CpG_22.23.24.25		chrX:119220301-119220303	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 26	CpG_22.23.24.25		chrX:119220299-119220301	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 27	CpG_22.23.24.25		chrX:119220292-119220294	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 28	CpG_26.27		chrX:119220275-119220277	0.02	0.02	0.02	0.23	0.28	0.21	0.39	0.23	0.13	0.11	0.12	0.42	0.34	0.02
53	3110007F17Rik	C57BL/6	CpG 29	CpG_26.27		chrX:119220269-119220271	0.02	0.02	0.02	0.23	0.28	0.21	0.39	0.23	0.13	0.11	0.12	0.42	0.34	0.02
53	3110007F17Rik	C57BL/6	CpG 30	CpG_28		chrX:119220255-119220257	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 31	CpG_29.30		chrX:119220243-119220245	0.01	0	0.02	0.2	0.23	0.16	0.32	0.23	0.14	0.17	0.09	0.32	0.31	0.01
53	3110007F17Rik	C57BL/6	CpG 32	CpG_29.30		chrX:119220240-119220242	0.01	0	0.02	0.2	0.23	0.16	0.32	0.23	0.14	0.17	0.09	0.32	0.31	0.01
53	3110007F17Rik	C57BL/6	CpG 33	CpG_31		chrX:119220222-119220224	0.12	0.14	0.13	0.19	0.21	0.21	0.34	0.27	0.13	0.21	0.13	0.31	0.28	0.12
53	3110007F17Rik	C57BL/6	CpG 34	CpG_32		chrX:119220213-119220215	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
55	Zfp568	C57BL/6	CpG 1	CpG_1		chr7:29692176-29692178	0.09	0.04	0.06	0.04	0.07	0.04	NA	0.12	0.09	0.12	0.1	0.08	0.14	0.08
55	Zfp568	C57BL/6	CpG 2	CpG_2		chr7:29692237-29692239	0.03	0.05	0.05	0.04	0.07	0.05	NA	0.12	0.18	0.08	0.08	0.06	0.11	0.08

**Supplemental Table S6**  
**Epityper Methylation Ratios (Reduced Set: BMM)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6							BALB/c												
							C57BL/6 male BMM (1)	C57BL/6 male BMM (2)	C57BL/6 male BMM (3)	C57BL/6 female BMM (1)	C57BL/6 female BMM (2)	C57BL/6 female BMM (3)	F1 (mother BALB/c) female BMM (A1)	F1 (mother BALB/c) female BMM (A2)	F1 (mother BALB/c) male BMM (A3)	F1 (mother BALB/c) male BMM (B1)	F1 (mother BALB/c) male BMM (B2)	F1 (mother C57BL/6) female BMM (C1)	F1 (mother C57BL/6) female BMM (C2)	F1 (mother C57BL/6) male BMM (C4)	BALB/c male BMM (1)	BALB/c male BMM (2)	BALB/c male BMM (3)	BALB/c female BMM (1)	BALB/c female BMM (2)	BALB/c female BMM (3)
55	Zfp568	C57BL/6	CpG 3	CpG_3		chr7:29692319-29692321	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
55	Zfp568	C57BL/6	CpG 4	CpG_4.5		chr7:29692398-29692400	0.04	0.03	0.06	0.05	0.04	0.05	NA	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.25	0.31	0.14	0.2	0.27	0.13
55	Zfp568	C57BL/6	CpG 5	CpG_4.5		chr7:29692402-29692404	0.04	0.03	0.06	0.05	0.04	0.05	NA	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.25	0.31	0.14	0.2	0.27	0.13
55	Zfp568	C57BL/6	CpG 6	CpG_6		chr7:29692410-29692412	0.13	0.08	0.01	0.03	0.14	0.07	NA	0.11	0.12	0.19	0.06	0.17	0.1	0.09	0.26	0.29	0.06	0.18	0.26	0.23
55	Zfp568	C57BL/6	CpG 7	CpG_7		chr7:29692424-29692426	0.04	0.03	0.07	0.06	0.05	0.05	NA	0.03	0.03	0.04	0.05	0.03	0.03	0.03	0.26	0.2	0.16	0.19	0.33	0.24
56	3110007F17Rik	BALB/c	CpG 1		CpG 1.2								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
56	3110007F17Rik	BALB/c	CpG 2		CpG 1.2								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
56	3110007F17Rik	BALB/c	CpG 3		CpG 3.4								0.12	0.07	0.04	0.01	0.06	0.05	0.09	0	0.25	0.31	0.14	0.2	0.27	0.13
56	3110007F17Rik	BALB/c	CpG 4		CpG 3.4								0.12	0.07	0.04	0.01	0.06	0.05	0.09	0	0.25	0.31	0.14	0.2	0.27	0.13
56	3110007F17Rik	BALB/c	CpG 5		CpG 5								0.15	0.14	0	0.06	0	0.13	0.22	0	0.26	0.29	0.06	0.18	0.26	0.23
56	3110007F17Rik	BALB/c	CpG 6		CpG 6								0.59	0.46	0.02	0.02	0.03	0.22	0.3	NA	0.26	0.2	0.16	0.19	0.33	0.24
56	3110007F17Rik	BALB/c	CpG 7		CpG 7.8								0.16	0.17	0.04	0.04	0.04	0.12	0.16	0.01	0.23	0.16	0.12	0.14	0.2	0.16
56	3110007F17Rik	BALB/c	CpG 8		CpG 7.8								0.16	0.17	0.04	0.04	0.04	0.12	0.16	0.01	0.23	0.16	0.12	0.14	0.2	0.16
56	3110007F17Rik	BALB/c	CpG 9		CpG 9.10								0.31	0.26	0.12	0.08	0.16	0.31	0.43	0.05	0.37	0.31	0.25	0.37	0.42	0.41
56	3110007F17Rik	BALB/c	CpG 10		CpG 9.10								0.31	0.26	0.12	0.08	0.16	0.31	0.43	0.05	0.37	0.31	0.25	0.37	0.42	0.41
56	3110007F17Rik	BALB/c	CpG 11		CpG 11.12								0.19	0.17	0.09	0.08	0.11	0.22	0.27	0.04	0.27	0.26	0.17	0.21	0.28	0.17
56	3110007F17Rik	BALB/c	CpG 12		CpG 11.12								0.19	0.17	0.09	0.08	0.11	0.22	0.27	0.04	0.27	0.26	0.17	0.21	0.28	0.17
56	3110007F17Rik	BALB/c	CpG 13		CpG 13								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	3110007F17Rik	BALB/c	CpG 14		CpG 14.15								0.27	0.22	0.05	0.09	0.01	0.21	0.12	0.04	0.35	0.22	0.11	0.19	0.48	0.53
56	3110007F17Rik	BALB/c	CpG 15		CpG 14.15								0.27	0.22	0.05	0.09	0.01	0.21	0.12	0.04	0.35	0.22	0.11	0.19	0.48	0.53
56	3110007F17Rik	BALB/c	CpG 16		CpG 16.17.18								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	3110007F17Rik	BALB/c	CpG 17		CpG 16.17.18								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	3110007F17Rik	BALB/c	CpG 18		CpG 16.17.18								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	3110007F17Rik	BALB/c	CpG 19		CpG 19								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	3110007F17Rik	BALB/c	CpG 20		CpG 20								0.26	0.25	0.21	0.24	0.21	0.39	0.28	0.18	0.4	0.42	0.24	0.32	0.37	0.29
56	3110007F17Rik	BALB/c	CpG 21		CpG 21								0.25	0.5	0.14	0.24	0.11	0.37	0.29	0.2	0.36	0.3	0.07	0.31	0.36	0.22
56	3110007F17Rik	BALB/c	CpG 22		CpG 22.23.24								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	3110007F17Rik	BALB/c	CpG 23		CpG 22.23.24								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	3110007F17Rik	BALB/c	CpG 24		CpG 22.23.24								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	3110007F17Rik	BALB/c	CpG 25		CpG 25.26								0.33	0.25	0.14	0.15	0.18	0.3	0.34	0.01	0.4	0.46	0.25	0.36	0.42	0.39
56	3110007F17Rik	BALB/c	CpG 26		CpG 25.26								0.33	0.25	0.14	0.15	0.18	0.3	0.34	0.01	0.4	0.46	0.25	0.36	0.42	0.39
56	3110007F17Rik	BALB/c	CpG 27		CpG 27								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	3110007F17Rik	BALB/c	CpG 28		CpG 28.29								0.24	0.25	0.08	0.1	0.15	0.25	0.31	0	0.33	0.48	0.25	0.36	0.4	0.39
56	3110007F17Rik	BALB/c	CpG 29		CpG 28.29								0.24	0.25	0.08	0.1	0.15	0.25	0.31	0	0.33	0.48	0.25	0.36	0.4	0.39

**Supplemental Table S6**  
**Epityper Methylation Ratios (Reduced Set: BMM)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male BMM				F1 (mother BALB/c) female BMM				BALB/c male BMM					
							(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)		
56	3110007F17Rik	BALB/c	CpG 30	CpG 30	CpG 30	C57BL/6 male BMM (1)	0.26	0.25	0.21	0.24	0.21	0.39	0.28	0.18	0.4	0.42	0.24	0.32	0.37	0.29
56	3110007F17Rik	BALB/c	CpG 31	CpG 31	CpG 31	C57BL/6 male BMM (2)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
58	Zfp568	BALB/c	CpG 1	CpG 1	CpG 1	C57BL/6 male BMM (3)	0.46	0.6	0.38	0.49	0.38	0.31	0.42	0.34	0.57	0.52	0.33	0.35	0.33	0.27
58	Zfp568	BALB/c	CpG 2	CpG 2.3	CpG 2.3	C57BL/6 female BMM (1)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
58	Zfp568	BALB/c	CpG 3	CpG 2.3	CpG 2.3	C57BL/6 female BMM (2)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
58	Zfp568	BALB/c	CpG 4	CpG 4.5	CpG 4.5	C57BL/6 female BMM (3)	0.85	0.82	0.73	0.8	0.76	0.77	0.76	0.81	0.86	0.82	0.84	0.82	0.82	0.78
58	Zfp568	BALB/c	CpG 5	CpG 4.5	CpG 4.5	F1 (mother BALB/c) male BMM (B1)	0.85	0.82	0.73	0.8	0.76	0.77	0.76	0.81	0.86	0.82	0.84	0.82	0.82	0.78
58	Zfp568	BALB/c	CpG 6	CpG 6.7	CpG 6.7	F1 (mother BALB/c) male BMM (B2)	0.61	0.49	0.48	0.49	0.49	0.53	0.6	0.58	0.56	0.59	0.64	0.54	0.51	0.61
58	Zfp568	BALB/c	CpG 7	CpG 6.7	CpG 6.7	F1 (mother C57BL/6) female BMM (C1)	0.61	0.49	0.48	0.49	0.49	0.53	0.6	0.58	0.56	0.59	0.64	0.54	0.51	0.61
58	Zfp568	BALB/c	CpG 8	CpG 8	CpG 8	F1 (mother C57BL/6) female BMM (C2)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
58	Zfp568	BALB/c	CpG 9	CpG 9.10	CpG 9.10	F1 (mother C57BL/6) male BMM (C4)	0.05	0.02	0.03	0.03	0.02	0.02	0.04	0.04	0.04	0.04	0.06	0.04	0.05	0.04
58	Zfp568	BALB/c	CpG 10	CpG 9.10	CpG 9.10	BALB/c male BMM (1)	0.05	0.02	0.03	0.03	0.02	0.02	0.04	0.04	0.04	0.04	0.06	0.04	0.05	0.04
58	Zfp568	BALB/c	CpG 11	CpG 11	CpG 11	BALB/c male BMM (2)	0.09	0.04	0.06	0.03	0.09	0.07	0.07	0.06	0.06	0.03	0.03	0.05	0.06	0.04
58	Zfp568	BALB/c	CpG 12	CpG 12	CpG 12	BALB/c male BMM (3)														

**Supplemental Table S7**  
**Epityper Methylation Ratios (Reduced Set: Spleen)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.		CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6 mm8)	C57BL/6 male spleen			F1 (mother BALB/c) female spleen				F1 (mother BALB/c) male spleen				BALB/c male spleen								
			CpG 1	CpG 2				C57BL/6 male spleen (1)	C57BL/6 male spleen (2)	C57BL/6 male spleen (3)	C57BL/6 female spleen (1)	C57BL/6 female spleen (2)	C57BL/6 female spleen (3)	F1 (mother BALB/c) female spleen (A1)	F1 (mother BALB/c) female spleen (A2)	F1 (mother BALB/c) male spleen (A3)	F1 (mother BALB/c) male spleen (B1)	F1 (mother C57BL/6) female spleen (C1)	F1 (mother C57BL/6) female spleen (C2)	F1 (mother C57BL/6) male spleen (C3)	F1 (mother C57BL/6) male spleen (C4)	BALB/c male spleen (1)	BALB/c male spleen (2)	BALB/c male spleen (3)			
02	1600021P15Rik	both	CpG 1	CpG_1	CpG 1	CpG 1	chr16:28834032-28834034	0.13	0.13	0.11	0.12	0.11	0.12	0.32	0.3	0.2	0.31	0.31	0.34	0.28	0.27	0.54	0.4	0.38	0.37	0.46	0.56
02	1600021P15Rik	both	CpG 2	CpG_2	CpG 2	CpG 2	chr16:28833991-28833993	NA	0.12	0.01	0.16	0.12	0.11	0.51	0.53	0.33	NA	0.37	0.27	NA	NA	0.79	NA	0.47	0.58	0.84	0.73
02	1600021P15Rik	both	CpG 3	CpG_3	CpG 3	CpG 3	chr16:28833971-28833973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
02	1600021P15Rik	both	CpG 4	CpG_4.5	CpG 4.5	CpG 4.5	chr16:28833936-28833938	0.09	0.12	0.11	0.13	0.05	0.14	0.42	0.44	0.4	0.45	0.45	0.42	0.43	0.46	0.89	0.82	0.86	0.91	0.92	0.96
02	1600021P15Rik	both	CpG 5	CpG_4.5	CpG 4.5	CpG 4.5	chr16:28833924-28833926	0.09	0.12	0.11	0.13	0.05	0.14	0.42	0.44	0.4	0.45	0.45	0.42	0.43	0.46	0.89	0.82	0.86	0.91	0.92	0.96
02	1600021P15Rik	both	CpG 6	CpG_6	CpG 6	CpG 6	chr16:28833915-28833917	0.1	0.15	0.13	0.17	0.08	0.16	0.56	0.46	0.51	0.51	0.51	0.54	0.5	0.51	0.94	0.88	1	0.67	0.92	0.84
02	1600021P15Rik	both	CpG 7	CpG_7	CpG 7	CpG 7								NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
02	1600021P15Rik	both	CpG 8	CpG_8	CpG 8	CpG 8	chr16:28833818-28833820	0.29	0.3	0.26	0.25	0.21	0.31	0.55	0.53	0.48	0.5	0.56	0.54	0.46	0.52	0.84	0.76	0.75	0.81	0.79	0.82
02	1600021P15Rik	both	CpG 9	CpG_9	CpG 9	CpG 9	chr16:28833762-28833764	0.29	0.3	0.26	0.25	0.21	0.31	0.55	0.53	0.48	0.5	0.56	0.54	0.46	0.52	0.84	0.76	0.75	0.81	0.79	0.82
02	1600021P15Rik	both	CpG 10	CpG_10	CpG 10	CpG 10	chr16:28833732-28833734	0.4	0.48	0.28	0.55	0.4	0.46	0.95	0.74	0.72	0.89	0.83	0.78	0.74	0.83	1	0.92	0.98	1	1	1
05	Asb4	both	CpG 1	CpG_1	CpG 1	CpG 1	chr6:5333237-5333239	0.07	0.12	0.1	0.09	0.06	0.12	0.43	0.57	0.5	0.54	0.54	0.52	0.49	0.5	0.91	0.79	0.83	0.82	0.84	0.87
05	Asb4	both	CpG 2	CpG_2	CpG 2	CpG 2	chr6:5333300-5333302	0.11	0.09	0.04	0.06	0.08	0.09	0.4	0.44	0.32	0.44	0.42	0.36	0.41	0.34	0.81	0.64	0.62	0.63	0.73	0.62
05	Asb4	both	CpG 3	CpG_3	CpG 3	CpG 3	chr6:5333357-5333359	0.56	0.47	0.45	0.41	0.43	0.45	0.65	0.65	0.64	0.61	0.63	0.73	0.63	0.65	0.76	0.76	0.71	0.74	0.81	0.74
05	Asb4	both	CpG 4	CpG_4	CpG 4	CpG 4	chr6:5333384-5333386	0.56	0.47	0.45	0.41	0.43	0.45	0.65	0.65	0.64	0.61	0.63	0.73	0.63	0.65	0.76	0.76	0.71	0.74	0.81	0.74
05	Asb4	both	CpG 5	CpG_5	CpG 5	CpG 5	chr6:5333417-5333419	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
06	Asb4	both	CpG 1	CpG_1.2	CpG 1.2	CpG 1.2	chr6:5333724-5333726	0.16	0.16	NA	0.15	0.09	0.12	NA	0.48	0.45	0.46	0.46	0.49	0.54	0.48	0.83	0.84	0.82	0.83	0.88	0.84
06	Asb4	both	CpG 2	CpG_1.2	CpG 1.2	CpG 1.2	chr6:5333721-5333723	0.16	0.16	NA	0.15	0.09	0.12	NA	0.48	0.45	0.46	0.46	0.49	0.54	0.48	0.83	0.84	0.82	0.83	0.88	0.84
06	Asb4	both	CpG 3	CpG_3	CpG 3	CpG 3	chr6:5333659-5333661	0.35	0.31	NA	0.24	0.19	0.18	NA	0.57	0.59	0.59	0.59	0.56	0.52	0.54	0.9	0.77	0.85	0.86	0.89	0.92
06	Asb4	both	CpG 4	CpG_4	CpG 4	CpG 4	chr6:5333625-5333627	0.35	0.31	NA	0.24	0.19	0.18	NA	0.57	0.59	0.59	0.59	0.56	0.52	0.54	0.9	0.77	0.85	0.86	0.89	0.92
06	Asb4	both	CpG 5	CpG_5	CpG 5	CpG 5	chr6:5333605-5333607	0.17	0.13	NA	0.12	0.06	0.05	NA	0.48	0.6	0.4	0.54	0.53	0.45	0.42	0.83	0.75	0.78	0.81	0.8	0.8
07	Asb4	both	CpG 1	CpG_1.2	CpG 1.2	CpG 1.2	chr6:5334203-5334205	0.04	0.04	0.04	0.01	0.01	0.02	0.16	0.21	0.1	0.19	0.19	0.2	0.14	0.24	0.37	0.29	0.28	0.28	0.33	0.28
07	Asb4	both	CpG 2	CpG_1.2	CpG 1.2	CpG 1.2	chr6:5334200-5334202	0.04	0.04	0.04	0.01	0.01	0.02	0.16	0.21	0.1	0.19	0.19	0.2	0.14	0.24	0.37	0.29	0.28	0.28	0.33	0.28
07	Asb4	both	CpG 3	CpG_3.4.5	CpG 3.4.5	CpG 3.4.5	chr6:5334181-5334183	0.11	0.09	0.06	0.05	0.04	0.04	0.28	0.29	0.2	NA	0.35	0.26	0.21	0.33	0.5	0.46	NA	NA	0.47	0.46
07	Asb4	both	CpG 4	CpG_3.4.5	CpG 3.4.5	CpG 3.4.5	chr6:5334179-5334181	0.11	0.09	0.06	0.05	0.04	0.04	0.28	0.29	0.2	NA	0.35	0.26	0.21	0.33	0.5	0.46	NA	NA	0.47	0.46
07	Asb4	both	CpG 5	CpG_3.4.5	CpG 3.4.5	CpG 3.4.5	chr6:5334177-5334179	0.11	0.09	0.06	0.05	0.04	0.04	0.28	0.29	0.2	NA	0.35	0.26	0.21	0.33	0.5	0.46	NA	NA	0.47	0.46
07	Asb4	both	CpG 6	CpG_6.7	CpG 6.7	CpG 6.7	chr6:5334098-5334100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
07	Asb4	both	CpG 7	CpG_6.7	CpG 6.7	CpG 6.7	chr6:5334087-5334089	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
07	Asb4	both	CpG 8	CpG_8	CpG 8	CpG 8	chr6:5334053-5334055	0	0.04	0.03	0.02	0	0.01	0.15	0.23	0.17	0.19	0.25	0.23	0.16	0.28	0.42	0.36	0.38	0.35	0.41	0.41
07	Asb4	both	CpG 9	CpG_9.10	CpG 9.10	CpG 9.10	chr6:5334013-5334015	0.05	0.05	0.08	0.07	0.02	0.04	0.28	0.32	0.26	0.27	0.33	0.31	0.23	0.38	0.59	0.53	0.52	0.5	0.57	0.52
07	Asb4	both	CpG 10	CpG_9.10	CpG 9.10	CpG 9.10	chr6:5334007-5334009	0.05	0.05	0.08	0.07	0.02	0.04	0.28	0.32	0.26	0.27	0.33	0.31	0.23	0.38	0.59	0.53	0.52	0.5	0.57	0.52
09	Coro2a	both	CpG 1	CpG_1.2	CpG 1.2	CpG 1.2	chr4:46621092-46621094	0.64	0.63	0.62	0.6	0.64	0.71	0.74	0.79	0.79	0.81	0.79	0.78	0.76	0.79	0.94	0.88	0.92	0.95	0.9	0.92
09	Coro2a	both	CpG 2	CpG_1.2	CpG 1.2	CpG 1.2	chr4:46621096-46621098	0.64	0.63	0.62	0.6	0.64	0.71	0.74	0.79	0.79	0.81	0.79	0.78	0.76	0.79	0.94	0.88	0.92	0.95	0.9	0.92
09	Coro2a	both	CpG 3	CpG_3	CpG 3	CpG 3	chr4:46621101-46621103	0.64	0.63	0.62	0.56	0.59	0.68	0.75	0.77	0.79	0.81	0.81	0.81	0.77	0.76	0.96	0.86	0.91	0.92	0.92	0.91
09	Coro2a	both	CpG 4	CpG_4	CpG 4	CpG 4	chr4:46621124-46621126	0.47	0.44	0.47	0.43	0.45	0.38	0.65	0.66	0.61	0.65	0.64	0.6	0.66	0.64	0.89	0.77	0.82	0.83	0.83	0.82



## Supplemental Table S7

### Epityper Methylation Ratios (Reduced Set: Spleen)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6 mm8)	C57BL/6 male spleen			C57BL/6 female spleen			F1 (mother BALB/c) female spleen				F1 (mother BALB/c) male spleen									
							(1)	(2)	(3)	(1)	(2)	(3)	(A1)	(A2)	(A3)	(B1)	(C1)	(C2)	(C3)	(C4)	(1)	(2)	(3)			
15	Eps811	both	CpG 8	CpG_9.10	CpG 7.8	chr7:4081343-4081345	0.21	0.2	0.41	0.21	0.36	0.3	0.08	0.16	0.05	0.09	0.11	0.09	0.13	0.13	0.17	0.18	0.29	0.13	0.2	0.2
15	Eps811	both	CpG 9	CpG_9.10	CpG 9.10	chr7:4081318-4081320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15	Eps811	both	CpG 10	CpG_9.10	CpG 9.10	chr7:4081310-4081312	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15	Eps811	both	CpG 11	CpG_11	CpG 11	chr7:4081300-4081302	0.21	0.16	0.33	0.2	0.31	0.2	0.09	0.1	0.04	0.06	0.06	0.08	0.06	0.06	0.13	0.08	0.14	0.08	0.08	0.12
15	Eps811	both	CpG 12	CpG_12	CpG 12	chr7:4081289-4081291	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15	Eps811	both	CpG 13	CpG_13.14	CpG 13.14	chr7:4081285-4081287	0.18	0.17	0.37	0.22	0.36	0.51	0.12	0.13	0.05	0.13	0.17	0.05	0.11	0.13	0.15	0.12	0.14	0.28	0.19	0.2
15	Eps811	both	CpG 14	CpG_13.14	CpG 13.14	chr7:4081277-4081279	0.18	0.17	0.37	0.22	0.36	0.51	0.12	0.13	0.05	0.13	0.17	0.05	0.11	0.13	0.15	0.12	0.14	0.28	0.19	0.2
15	Eps811	both	CpG 15	CpG_15.16	CpG 15.16	chr7:4081270-4081272	0.25	0.17	0.26	0.22	0.35	0.16	0.1	0.03	0.07	0.07	0.14	0.09	0.11	0.14	0.15	0.15	0.16	0.12	0.08	0.13
15	Eps811	both	CpG 16	CpG_15.16	CpG 15.16	chr7:4081268-4081270	0.25	0.17	0.26	0.22	0.35	0.16	0.1	0.03	0.07	0.07	0.14	0.09	0.11	0.14	0.15	0.15	0.16	0.12	0.08	0.13
15	Eps811	both	CpG 17	CpG_17	CpG 17	chr7:4081209-4081211	0.18	0.13	0.22	0.08	0.2	0.12	0	0.05	0.02	0	0.02	0.01	0.08	0.07	0.07	0.1	0.08	0.02	0.07	0.05
15	Eps811	both	CpG 18	CpG_18	CpG 18	chr7:4081192-4081194	0.37	0.37	0.43	0.47	0.48	0.53	0.4	0.41	0.39	0.39	0.34	0.33	0.35	0.43	0.64	0.54	0.49	0.38	0.42	0.39
19	Isoc2b	both	CpG 1	CpG_1	CpG 1	chr7:4468813-4468815	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19	Isoc2b	both	CpG 2	CpG_2	CpG 2	chr7:4468830-4468832	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19	Isoc2b	both	CpG 3	CpG_3	CpG 3	chr7:4468845-4468847	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19	Isoc2b	both	CpG 4	CpG_4	CpG 4	chr7:4468862-4468864	0.61	NA	0.48	0.44	0.52	0.32	0.67	0.58	0.63	0.63	0.73	0.79	0.68	0.63	0.96	0.88	0.86	0.89	0.91	0.94
19	Isoc2b	both	CpG 5	CpG_5	CpG 5	chr7:4468965-4468967	0	NA	0.01	0.01	0	0.01	0.17	0.09	0.14	0.16	0.23	0.29	0.09	0.1	0.63	0.52	0.54	0.43	0.6	0.66
19	Isoc2b	both	CpG 6	CpG_6.7	CpG 6.7	chr7:4469012-4469014	0.04	NA	0.04	0.03	0.03	0.04	0.21	0.13	0.16	0.19	0.29	0.34	0.15	0.18	0.8	0.7	0.72	0.6	0.73	0.85
19	Isoc2b	both	CpG 7	CpG_6.7	CpG 6.7	chr7:4469014-4469016	0.04	NA	0.04	0.03	0.03	0.04	0.21	0.13	0.16	0.19	0.29	0.34	0.15	0.18	0.8	0.7	0.72	0.6	0.73	0.85
19	Isoc2b	both	CpG 8	CpG_8	CpG 8	chr7:4469055-4469057	0.06	NA	0.06	0.04	0.02	0.05	0.26	0.14	0.17	0.25	0.34	0.42	0.2	0.24	0.85	0.75	0.77	0.62	0.74	0.83
19	Isoc2b	both	CpG 9	CpG_9	CpG 9	chr7:4469061-4469063	0.12	NA	0.03	0.14	0.03	0.06	0.42	0.22	0.17	NA	0.39	0.32	0.16	0.28	1	0.72	0.61	0.49	0.58	0.6
19	Isoc2b	both	CpG 10	CpG_10.11	CpG 10.11	chr7:4469080-4469082	0.07	NA	0.07	0.06	0.06	0.05	0.25	0.15	0.17	0.23	0.34	0.37	0.2	0.23	0.88	0.77	0.8	0.63	0.77	0.89
19	Isoc2b	both	CpG 11	CpG_10.11	CpG 10.11	chr7:4469087-4469089	0.07	NA	0.07	0.06	0.06	0.05	0.25	0.15	0.17	0.23	0.34	0.37	0.2	0.23	0.88	0.77	0.8	0.63	0.77	0.89
19	Isoc2b	both	CpG 12	CpG_12	CpG 12	chr7:4469099-4469101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	Isoc2b	both	CpG 1	CpG_1	CpG 1	chr7:4469133-4469135	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	Isoc2b	both	CpG 2	CpG_2	CpG 2	chr7:4469138-4469140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	Isoc2b	both	CpG 3	CpG_3	CpG 3	chr7:4469148-4469150	0.11	0.15	0.01	0.12	0.11	0.08	0.35	0.17	NA	NA	0.26	0.38	NA	NA	1	0.66	0.3	NA	0.54	0.82
21	Isoc2b	both	CpG 4	CpG_4	CpG 4	chr7:4469163-4469165	0	0	0	0	0	0	0.07	0.03	0.12	NA	0.18	0.21	0.07	NA	0.65	0.53	0.56	0.41	0.56	0.72
21	Isoc2b	both	CpG 5	CpG_5	CpG 5	chr7:4469169-4469171	0.02	0.02	0	0.03	0.04	0.02	0.18	0.07	0.17	NA	0.24	0.27	0.11	NA	0.8	0.68	0.65	0.51	0.72	0.82
21	Isoc2b	both	CpG 6	CpG_6	CpG 6	chr7:4469192-4469194	0.04	0.06	0.14	0.08	0.06	0.11	0.2	0.12	0.19	NA	0.25	0.25	0.13	NA	0.69	0.56	0.73	0.45	0.63	0.73
21	Isoc2b	both	CpG 7	CpG_7	CpG 7	chr7:4469206-4469208	0.01	0.02	0	0.02	0.01	0.01	0.24	0.08	0.22	NA	0.3	0.32	0.13	NA	0.87	0.77	0.78	0.58	0.77	0.91
21	Isoc2b	both	CpG 8	CpG_8	CpG 8	chr7:4469226-4469228	0.02	0.02	0.03	0.01	0	0.01	0.15	0.07	0.19	NA	0.17	0.25	0.11	NA	0.73	0.62	0.65	0.49	0.65	0.73
21	Isoc2b	both	CpG 9	CpG_9	CpG 9	chr7:4469259-4469261	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	Isoc2b	both	CpG 10	CpG_10.11	CpG 10.11	chr7:4469271-4469273	0.02	0.02	0.06	0.05	0.03	0.03	0.18	0.06	0.14	NA	0.21	0.26	0.13	NA	0.79	0.59	0.72	0.5	0.66	0.88
21	Isoc2b	both	CpG 11	CpG_10.11	CpG 10.11	chr7:4469273-4469275	0.02	0.02	0.06	0.05	0.03	0.03	0.18	0.06	0.14	NA	0.21	0.26	0.13	NA	0.79	0.59	0.72	0.5	0.66	0.88

**Supplemental Table S7**  
**Epityper Methylation Ratios (Reduced Set: Spleen)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6 mm8)	C57BL/6 male spleen			C57BL/6 female spleen			F1 (mother BALB/c) female spleen				BALB/c male spleen									
							(1)	(2)	(3)	(1)	(2)	(3)	(A1)	(A2)	(A3)	(B1)	(C1)	(C2)	(C3)	(C4)	(1)	(2)	(3)	(1)	(2)	(3)
21	Isoc2b	both	CpG 12	CpG_12.13.14	CpG 12.13.14	chr7:4469287-4469289	0	0.01	0	0	0.01	0.01	0.14	0.04	0.12	NA	0.17	0.23	0.09	NA	0.73	0.61	0.69	0.51	0.63	0.83
21	Isoc2b	both	CpG 13	CpG_12.13.14	CpG 12.13.14	chr7:4469289-4469291	0	0.01	0	0	0.01	0.01	0.14	0.04	0.12	NA	0.17	0.23	0.09	NA	0.73	0.61	0.69	0.51	0.63	0.83
21	Isoc2b	both	CpG 14	CpG_12.13.14	CpG 12.13.14	chr7:4469292-4469294	0	0.01	0	0	0.01	0.01	0.14	0.04	0.12	NA	0.17	0.23	0.09	NA	0.73	0.61	0.69	0.51	0.63	0.83
21	Isoc2b	both	CpG 15	CpG_15.16.17	CpG 15.16.17	chr7:4469305-4469307	0.1	0.09	0.1	0.12	0.11	0.11	0.24	0.15	0.23	NA	0.27	0.31	0.2	NA	0.84	0.68	0.8	0.6	0.73	0.89
21	Isoc2b	both	CpG 16	CpG_15.16.17	CpG 15.16.17	chr7:4469308-4469310	0.1	0.09	0.1	0.12	0.11	0.11	0.24	0.15	0.23	NA	0.27	0.31	0.2	NA	0.84	0.68	0.8	0.6	0.73	0.89
21	Isoc2b	both	CpG 17	CpG_15.16.17	CpG 15.16.17	chr7:4469312-4469314	0.1	0.09	0.1	0.12	0.11	0.11	0.24	0.15	0.23	NA	0.27	0.31	0.2	NA	0.84	0.68	0.8	0.6	0.73	0.89
21	Isoc2b	both	CpG 18	CpG_18	CpG 18	chr7:4469345-4469347	0.11	0.15	0.01	0.12	0.11	0.08	0.35	0.17	NA	NA	0.26	0.38	NA	NA	0.81	0.66	0.3	NA	0.54	0.82
21	Isoc2b	both	CpG 19	CpG_19	CpG 19	chr7:4469372-4469374	0	0	0	0	0	0.01	0.23	0.06	0.15	NA	0.19	0.29	0.13	NA	0.81	0.64	0.7	0.47	0.68	0.83
21	Isoc2b	both	CpG 20	CpG_20	CpG 20	chr7:4469406-4469408	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22	Isoc2b	both	CpG 1	CpG_1	CpG 1	chr7:4469851-4469853	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22	Isoc2b	both	CpG 2	CpG_2.3	CpG 2.3	chr7:4469816-4469818	0.17	0.19	0.14	0.11	0.14	0.03	0.42	0.27	0.47	0.34	0.45	0.56	0.37	0.29	0.83	0.76	0.78	0.74	0.82	0.87
22	Isoc2b	both	CpG 3	CpG_2.3	CpG 2.3	chr7:4469808-4469810	0.17	0.19	0.14	0.11	0.14	0.03	0.42	0.27	0.47	0.34	0.45	0.56	0.37	0.29	0.83	0.76	0.78	0.74	0.82	0.87
22	Isoc2b	both	CpG 4	CpG_4	CpG 4	chr7:4469790-4469792	0.11	0.14	0.08	0.06	0.08	0.04	0.41	0.23	0.27	0.34	0.41	0.53	0.32	0.28	0.84	0.76	0.78	0.73	0.8	0.83
22	Isoc2b	both	CpG 5	CpG_5.6	CpG 5.6	chr7:4469764-4469766	0.1	0.12	0.17	0.08	0.08	0.07	0.33	0.2	0.38	0.29	0.38	0.48	0.26	0.25	0.76	0.68	0.7	0.64	0.68	0.77
22	Isoc2b	both	CpG 6	CpG_5.6	CpG 5.6	chr7:4469762-4469764	0.1	0.12	0.17	0.08	0.08	0.07	0.33	0.2	0.38	0.29	0.38	0.48	0.26	0.25	0.76	0.68	0.7	0.64	0.68	0.77
22	Isoc2b	both	CpG 7	CpG_7	CpG 7	chr7:4469693-4469695	0.07	0.1	0.08	0.03	0.21	0.02	0.3	0.14	0.41	0.28	0.33	0.44	0.26	0.23	0.76	0.62	0.67	0.54	0.69	0.77
22	Isoc2b	both	CpG 8	CpG_8	CpG 8	chr7:4469660-4469662	0.07	0.11	0.05	0.07	0.05	0.02	0.15	0.11	0.2	0.14	0.35	0.58	0.32	0.36	0.95	0.86	0.89	0.62	0.83	0.95
22	Isoc2b	both	CpG 9	CpG_9	CpG 9	chr7:4469648-4469650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22	Isoc2b	both	CpG 10	CpG_10	CpG 10	chr7:4469616-4469618	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22	Isoc2b	both	CpG 11	CpG_11	CpG 11	chr7:4469608-4469610	0.04	0.07	0.03	0.05	0.01	0.02	0.36	0.14	0.43	0.28	0.39	0.47	0.29	0.26	0.87	0.79	0.84	0.68	0.78	0.88
22	Isoc2b	both	CpG 12	CpG_12	CpG 12	chr7:4469598-4469600	0.05	0.11	0.06	0	0.16	0.03	0.29	0.14	0.3	0.22	0.39	0.54	0.28	0.27	0.86	0.75	0.84	0.59	0.83	0.92
22	Isoc2b	both	CpG 13	CpG_13	CpG 13	chr7:4469590-4469592	0.02	0.06	0.04	0	0.01	0	0.26	0.08	0.23	0.18	0.34	0.37	0.18	0.19	0.75	0.72	0.86	0.6	0.75	0.77
22	Isoc2b	both	CpG 14	CpG_14	CpG 14	chr7:4469583-4469585	0.06	0.05	0.05	0.06	0.11	0.06	0.27	0.12	0.24	0.21	0.32	0.35	0.21	0.2	0.75	0.57	0.66	0.52	0.61	0.79
22	Isoc2b	both	CpG 15	CpG_15.16.17	CpG 15.16.17	chr7:4469534-4469536	0.04	0.11	0.07	0.07	0.1	0.08	0.24	0.13	0.26	0.21	0.33	0.35	0.23	0.2	0.72	0.62	0.71	0.49	0.64	0.8
22	Isoc2b	both	CpG 16	CpG_15.16.17	CpG 15.16.17	chr7:4469530-4469532	0.04	0.11	0.07	0.07	0.1	0.08	0.24	0.13	0.26	0.21	0.33	0.35	0.23	0.2	0.72	0.62	0.71	0.49	0.64	0.8
22	Isoc2b	both	CpG 17	CpG_15.16.17	CpG 15.16.17	chr7:4469525-4469527	0.04	0.11	0.07	0.07	0.1	0.08	0.24	0.13	0.26	0.21	0.33	0.35	0.23	0.2	0.72	0.62	0.71	0.49	0.64	0.8
26	Pdgfrb	both	CpG 1	CpG_1	CpG 1	chr18:61191274-61191276	0.72	0.76	0.68	0.68	0.67	0.53	0.47	0.51	0.4	0.56	0.48	0.4	0.47	0.43	0.4	0.27	0.31	0.23	0.28	0.31
26	Pdgfrb	both	CpG 2	CpG_2	CpG 2	chr18:61191256-61191258	0.81	0.74	0.61	0.64	0.59	0.53	0.41	0.43	0.38	0.47	0.39	0.43	0.42	0.42	0.34	0.29	0.32	0.25	0.28	0.29
26	Pdgfrb	both	CpG 3	CpG_3	CpG 3	chr18:61191237-61191239	0.83	0.84	0.84	0.68	0.8	0.79	0.61	0.53	0.42	0.6	0.54	0.47	0.49	0.54	0.46	0.32	0.37	0.29	0.32	0.27
26	Pdgfrb	both	CpG 4	CpG_4.5	CpG 4.5	chr18:61191231-61191233	0.91	0.91	0.79	0.74	0.8	0.69	0.47	0.54	0.43	0.54	0.43	0.41	0.47	0.48	0.4	0.28	0.29	0.23	0.22	0.28
26	Pdgfrb	both	CpG 5	CpG_4.5	CpG 4.5	chr18:61191228-61191230	0.91	0.91	0.79	0.74	0.8	0.69	0.47	0.54	0.43	0.54	0.43	0.41	0.47	0.48	0.4	0.28	0.29	0.23	0.22	0.28
26	Pdgfrb	both	CpG 6	CpG_6	CpG 6	chr18:61191211-61191213	0.98	0.83	0.79	0.7	0.81	0.72	0.53	0.57	0.29	0.61	0.47	0.46	0.51	0.49	0.35	0.23	0.21	0.13	0.2	0.24
26	Pdgfrb	both	CpG 7	CpG_7	CpG 7	chr18:61191179-61191181	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26	Pdgfrb	both	CpG 8	CpG_8	CpG 8	chr18:61191168-61191170	0.89	0.83	0.8	0.67	0.61	0.55	0.4	0.57	0.37	0.62	0.48	0.42	0.5	0.44	0.39	0.24	0.24	0.15	0.18	0.17

## Supplemental Table S7 Epityper Methylation Ratios (Reduced Set: Spleen)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.		CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6 mm8)	C57BL/6 male spleen			F1 (mother BALB/c) female spleen				F1 (mother C57BL/6) female spleen				BALB/c male spleen									
			CpG 9	CpG_10				C57BL/6 male spleen (1)	C57BL/6 male spleen (2)	C57BL/6 male spleen (3)	C57BL/6 female spleen (1)	C57BL/6 female spleen (2)	C57BL/6 female spleen (3)	F1 (mother BALB/c) female spleen (A1)	F1 (mother BALB/c) female spleen (A2)	F1 (mother BALB/c) male spleen (A3)	F1 (mother BALB/c) male spleen (B1)	F1 (mother C57BL/6) female spleen (C1)	F1 (mother C57BL/6) female spleen (C2)	F1 (mother C57BL/6) male spleen (C3)	F1 (mother C57BL/6) male spleen (C4)	BALB/c male spleen (1)	BALB/c male spleen (2)	BALB/c male spleen (3)	BALB/c female spleen (1)	BALB/c female spleen (2)	BALB/c female spleen (3)	
26	Pdgfrb	both	CpG 9	CpG_9	CpG 9	CpG 9	chr18:61191157-61191159	0.78	0.89	0.75	0.68	0.68	0.5	0.46	0.4	0.36	0.54	0.43	0.38	0.45	0.4	0.37	0.29	0.24	0.2	0.21	0.2	
26	Pdgfrb	both	CpG 10	CpG_10.11	CpG 10.11	CpG 10.11	chr18:61191152-61191154	0.72	0.68	0.64	0.68	0.66	0.61	0.49	0.53	0.47	0.54	0.5	0.48	0.51	0.47	0.44	0.39	0.41	0.33	0.34	0.35	
26	Pdgfrb	both	CpG 11	CpG_10.11	CpG 10.11	CpG 10.11	chr18:61191148-61191150	0.72	0.68	0.64	0.68	0.66	0.61	0.49	0.53	0.47	0.54	0.5	0.48	0.51	0.47	0.44	0.39	0.41	0.33	0.34	0.35	
26	Pdgfrb	both	CpG 12	CpG_12	CpG 12	CpG 12	chr18:61191142-61191144	0.72	0.76	0.68	0.68	0.67	0.53	0.47	0.51	0.4	0.56	0.48	0.4	0.47	0.43	0.4	0.27	0.31	0.23	0.28	0.31	
26	Pdgfrb	both	CpG 13	CpG_13	CpG 13	CpG 13	chr18:61191097-61191099	0.75	0.8	0.63	0.52	0.57	0.42	0.22	0.34	0.22	0.33	0.25	0.19	0.28	0.24	0.29	0.24	0.2	0.15	0.15	0.22	
26	Pdgfrb	both	CpG 14	CpG_14	CpG 14	CpG 14	chr18:61191093-61191095	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
26	Pdgfrb	both	CpG 15	CpG_15	CpG 15	CpG 15	chr18:61191078-61191080	0.87	0.8	0.71	0.62	0.68	0.43	0.41	0.47	0.34	0.5	0.41	0.4	0.44	0.42	0.4	0.22	0.25	0.21	0.2	0.22	
26	Pdgfrb	both	CpG 16	CpG_16.17	CpG 16.17	CpG 16.17	chr18:61191056-61191058	0.85	0.8	0.66	0.62	0.6	0.49	0.47	0.52	0.27	0.51	0.45	0.39	0.48	0.41	0.3	0.2	0.26	0.23	0.21	0.21	
26	Pdgfrb	both	CpG 17	CpG_16.17	CpG 16.17	CpG 16.17	chr18:61191043-61191045	0.85	0.8	0.66	0.62	0.6	0.49	0.47	0.52	0.27	0.51	0.45	0.39	0.48	0.41	0.3	0.2	0.26	0.23	0.21	0.21	
35	Sfi1	both	CpG 1	CpG_1	CpG 1	CpG 1	chr11:3093387-3093389	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 2	CpG_2.3.4	CpG_2.3.4	CpG_2.3.4	chr11:3093430-3093432	0.93	0.91	0.89	0.9	0.8	0.82	0.74	0.76	0.76	0.81	0.84	0.85	0.8	0.81	0.33	0.25	0.32	0.24	0.28	0.3	
35	Sfi1	both	CpG 3	CpG_2.3.4	CpG_2.3.4	CpG_2.3.4	chr11:3093438-3093440	0.93	0.91	0.89	0.9	0.8	0.82	0.74	0.76	0.76	0.81	0.84	0.85	0.8	0.81	0.33	0.25	0.32	0.24	0.28	0.3	
35	Sfi1	both	CpG 4	CpG_2.3.4	CpG_2.3.4	CpG_2.3.4	chr11:3093441-3093443	0.93	0.91	0.89	0.9	0.8	0.82	0.74	0.76	0.76	0.81	0.84	0.85	0.8	0.81	0.33	0.25	0.32	0.24	0.28	0.3	
35	Sfi1	both	CpG 5	CpG_5.6.7	CpG_5.6.7	CpG_5.6.7	chr11:3093444-3093446	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 6	CpG_5.6.7	CpG_5.6.7	CpG_5.6.7	chr11:3093447-3093449	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 7	CpG_5.6.7	CpG_5.6.7	CpG_5.6.7	chr11:3093459-3093461	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 8	CpG_8	CpG 8	CpG 8	chr11:3093467-3093469	NA	0.81	0.77	0.83	0.76	0.77	NA	0.77	NA	NA	0.84	NA	0.85	0.89	0.48	0.46	0.41	0.37	0.48	0.48	
35	Sfi1	both	CpG 9	CpG_9.10	CpG 9.10	CpG 9.10	chr11:3093473-3093475	NA	0.61	0.56	0.7	0.64	0.7	NA	0.64	NA	NA	0.65	NA	0.67	NA	NA	0.63	0.49	0.54	0.63	0.57	
35	Sfi1	both	CpG 10	CpG_9.10	CpG 9.10	CpG 9.10	chr11:3093475-3093477	NA	0.61	0.56	0.7	0.64	0.7	NA	0.64	NA	NA	0.65	NA	0.67	NA	NA	0.63	0.49	0.54	0.63	0.57	
35	Sfi1	both	CpG 11	CpG_11.12.13	CpG 11.12.13	CpG 11.12.13	chr11:3093480-3093482	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 12	CpG_11.12.13	CpG 11.12.13	CpG 11.12.13	chr11:3093482-3093484	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 13	CpG_11.12.13	CpG 11.12.13	CpG 11.12.13	chr11:3093485-3093487	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 14	CpG_14	CpG 14	CpG 14	chr11:3093511-3093513	0.81	0.79	0.76	0.78	0.72	0.74	0.67	0.69	0.68	0.74	0.75	0.75	0.72	0.73	0.32	0.27	0.29	0.26	0.3	0.3	
35	Sfi1	both	CpG 15	CpG_15	CpG 15	CpG 15	chr11:3093550-3093552	1	1	1	1	1	1	1	1	1	1	1	1	1	0.44	0.29	0.4	0.28	0.39	0.39		
35	Sfi1	both	CpG 16	CpG_16	CpG 16	CpG 16	chr11:3093560-3093562	0.81	0.79	0.76	0.78	0.72	0.74	0.67	0.69	0.68	0.74	0.75	0.75	0.72	0.73	0.32	0.27	0.29	0.26	0.3	0.3	
35	Sfi1	both	CpG 17	CpG_17	CpG 17	CpG 17	chr11:3093585-3093587	0.83	0.8	0.74	0.78	0.69	0.72	0.66	0.7	0.64	0.72	0.77	0.75	0.68	0.73	0.22	0.15	0.19	0.16	0.2	0.22	
35	Sfi1	both	CpG 18	CpG_18	CpG 18	CpG 18	chr11:3093598-3093600	0.74	0.72	0.7	0.7	0.54	0.65	0.5	0.53	0.49	0.62	0.64	0.65	0.57	0.59	0.12	0.09	0.1	0.07	0.11	0.11	
35	Sfi1	both	CpG 19	CpG_19	CpG 19	CpG 19	chr11:3093629-3093631	0.9	0.9	0.88	0.88	0.79	0.85	0.77	0.8	0.8	0.84	0.86	0.86	0.82	0.83	0.34	0.25	0.31	0.27	0.3	0.33	
35	Sfi1	both	CpG 20	CpG_20	CpG 20	CpG 20	chr11:3093639-3093641	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
35	Sfi1	both	CpG 21	CpG_21	CpG 21	CpG 21	chr11:3093662-3093664	0.92	0.91	0.89	0.88	0.84	0.88	0.8	0.81	0.79	0.86	0.88	0.88	0.86	0.86	0.33	0.24	0.28	0.24	0.29	0.3	0.3
35	Sfi1	both	CpG 22	CpG_22.23	CpG 22.23	CpG 22.23	chr11:3093674-3093676	0.94	0.92	0.91	0.91	0.89	0.9	0.81	0.87	0.81	0.88	0.9	0.9	0.86	0.88	0.31	0.25	0.33	0.24	0.3	0.34	
35	Sfi1	both	CpG 23	CpG_22.23	CpG 22.23	CpG 22.23	chr11:3093677-3093679	0.94	0.92	0.91	0.91	0.89	0.9	0.81	0.87	0.81	0.88	0.9	0.9	0.86	0.88	0.31	0.25	0.33	0.24	0.3	0.34	
35	Sfi1	both	CpG 24	CpG_24	CpG 24	CpG 24	chr11:3093687-3093689	1	0.98	1	0.92	0.9	0.93	0.95	0.92	0.96	0.96	0.94	0.99	0.93	0.93	0.47	0.4	0.45	0.38	0.43	0.45	
35	Sfi1	both	CpG 25	CpG_25	CpG 25	CpG 25	chr11:3093700-3093702	NA	0.81	0.77	0.83	0.76	0.77	NA	0.77	NA	NA	0.84	NA	0.85	0.89	0.48	0.46	0.41	0.37	0.48	0.48	



**Supplemental Table S7**  
**Epityper Methylation Ratios (Reduced Set: Spleen)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.		CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6 mm8)	C57BL/6 male spleen			F1 (mother BALB/c) female spleen				BALB/c male spleen												
			CpG 4	CpG_4				CpG 5	CpG_5	CpG 6	CpG_6	CpG 7	CpG_7	CpG 8	CpG_8	F1 (mother BALB/c) female spleen (A1)	F1 (mother BALB/c) female spleen (A2)	F1 (mother BALB/c) male spleen (A3)	F1 (mother BALB/c) male spleen (B1)	F1 (mother C57BL/6) female spleen (C1)	F1 (mother C57BL/6) female spleen (C2)	F1 (mother C57BL/6) male spleen (C3)	F1 (mother C57BL/6) male spleen (C4)	BALB/c male spleen (1)	BALB/c male spleen (2)	BALB/c male spleen (3)	BALB/c female spleen (1)
37b	Sfi1 (ps)	both	CpG 4	CpG_4	CpG 4	CpG 4		0.88	0.87	0.91	0.85	0.78	0.79	0.55	0.64	0.54	0.61	0.66	0.73	0.63	0.67	0.13	0.11	0.14	0.07	0.07	0.08
37b	Sfi1 (ps)	both	CpG 5	CpG_5	CpG 5	CpG 5		0.84	0.81	0.76	0.72	0.62	0.62	0.69	0.7	0.62	0.72	0.72	0.73	0.72	0.73	0.12	0.13	0.15	0.09	0.08	0.12
37b	Sfi1 (ps)	both	CpG 6	CpG_6	CpG 6	CpG 6		0.96	0.93	0.96	0.92	0.9	0.9	0.78	0.82	0.86	0.85	0.88	0.89	0.85	0.86	0.15	0.16	0.16	0.08	0.08	0.12
37b	Sfi1 (ps)	both	CpG 7	CpG_7,8	CpG 7,8	CpG 7,8		0.94	0.91	0.89	0.91	0.85	0.86	0.72	0.74	0.71	0.77	0.79	0.83	0.76	0.79	0.1	0.08	0.11	0.07	0.08	0.11
37b	Sfi1 (ps)	both	CpG 8	CpG_7,8	CpG 7,8	CpG 7,8		0.94	0.91	0.89	0.91	0.85	0.86	0.72	0.74	0.71	0.77	0.79	0.83	0.76	0.79	0.1	0.08	0.11	0.07	0.08	0.11
37b	Sfi1 (ps)	both	CpG 9	CpG_9,10,11	CpG 9,10,11	CpG 9,10,11		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37b	Sfi1 (ps)	both	CpG 10	CpG_9,10,11	CpG 9,10,11	CpG 9,10,11		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37b	Sfi1 (ps)	both	CpG 11	CpG_9,10,11	CpG 9,10,11	CpG 9,10,11		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37b	Sfi1 (ps)	both	CpG 12	CpG_12	CpG 12	CpG 12		0.7	0.69	0.63	0.6	0.5	0.51	0.35	0.42	0.32	0.47	0.46	0.55	0.38	0.44	0.03	0.02	0.04	0.01	0.01	0.03
37b	Sfi1 (ps)	both	CpG 13	CpG_13	CpG 13	CpG 13		0.79	0.79	0.66	0.74	0.58	0.65	0.6	0.6	NA	NA	0.73	0.71	0.51	NA	0.06	0.09	0.02	0	0	0.02
37b	Sfi1 (ps)	both	CpG 14	CpG_14,15	CpG 14,15	CpG 14,15		0.87	0.86	0.85	0.84	0.78	0.8	0.66	0.75	0.71	0.77	0.74	0.81	0.73	0.76	0.1	0.09	0.12	0.04	0.05	0.08
37b	Sfi1 (ps)	both	CpG 15	CpG_14,15	CpG 14,15	CpG 14,15		0.87	0.86	0.85	0.84	0.78	0.8	0.66	0.75	0.71	0.77	0.74	0.81	0.73	0.76	0.1	0.09	0.12	0.04	0.05	0.08
37b	Sfi1 (ps)	both	CpG 16	CpG_16,17	CpG 16,17	CpG 16,17		0.76	0.74	0.76	0.77	0.72	0.74	0.64	0.66	0.69	0.71	0.69	0.71	0.69	0.7	0.18	0.23	0.33	0.18	0.15	0.2
37b	Sfi1 (ps)	both	CpG 17	CpG_16,17	CpG 16,17	CpG 16,17		0.76	0.74	0.76	0.77	0.72	0.74	0.64	0.66	0.69	0.71	0.69	0.71	0.69	0.7	0.18	0.23	0.33	0.18	0.15	0.2
37b	Sfi1 (ps)	both	CpG 18	CpG_18	CpG 18	CpG 18		0.89	0.96	0.85	0.81	0.79	0.78	0.73	0.74	0.73	0.81	0.79	0.8	0.78	0.74	0.12	0.11	0.14	0.07	0.08	0.13
37b	Sfi1 (ps)	both	CpG 19	CpG_19,20	CpG 19,20	CpG 19,20		0.81	0.8	0.75	0.76	0.72	0.7	0.56	0.6	0.56	0.6	0.67	0.69	0.64	0.65	0.09	0.1	0.14	0.09	0.09	0.1
37b	Sfi1 (ps)	both	CpG 20	CpG_19,20	CpG 19,20	CpG 19,20		0.81	0.8	0.75	0.76	0.72	0.7	0.56	0.6	0.56	0.6	0.67	0.69	0.64	0.65	0.09	0.1	0.14	0.09	0.09	0.1
37b	Sfi1 (ps)	both	CpG 21	CpG_21	CpG 21	CpG 21		0.83	0.87	0.84	0.85	0.79	0.81	0.74	0.77	0.74	0.81	0.8	0.82	0.79	0.8	0.41	0.36	0.34	0.34	0.37	0.37
37b	Sfi1 (ps)	both	CpG 22	CpG_22,23	CpG 22,23	CpG 22,23		0.84	0.81	0.76	0.78	0.69	0.73	0.7	0.74	0.7	0.77	0.76	0.75	0.74	0.73	0.16	0.16	0.15	0.12	0.11	0.13
37b	Sfi1 (ps)	both	CpG 23	CpG_22,23	CpG 22,23	CpG 22,23		0.84	0.81	0.76	0.78	0.69	0.73	0.7	0.74	0.7	0.77	0.76	0.75	0.74	0.73	0.16	0.16	0.15	0.12	0.11	0.13
37b	Sfi1 (ps)	both	CpG 24	CpG_24	CpG 24	CpG 24		0.91	0.91	0.86	0.83	0.81	0.8	0.69	0.75	0.68	0.75	0.79	0.82	0.75	0.76	0.12	0.09	0.12	0.05	0.05	0.1
37b	Sfi1 (ps)	both	CpG 25	CpG_25,26	CpG 25,26	CpG 25,26		0.39	0.4	0.36	0.36	0.32	0.36	0.32	0.32	0.3	0.32	0.32	0.36	0.3	0.34	0.03	0.04	0.05	0.04	0.03	0.06
37b	Sfi1 (ps)	both	CpG 26	CpG_25,26	CpG 25,26	CpG 25,26		0.39	0.4	0.36	0.36	0.32	0.36	0.32	0.32	0.3	0.32	0.32	0.36	0.3	0.34	0.03	0.04	0.05	0.04	0.03	0.06
37b	Sfi1 (ps)	both	CpG 27	CpG_27	CpG 27	CpG 27		0.83	0.82	0.74	0.73	0.63	0.7	0.71	0.75	0.74	0.77	0.75	0.76	0.68	0.73	0.13	0.14	0.17	0.1	0.09	0.12
37b	Sfi1 (ps)	both	CpG 28	CpG_28	CpG 28	CpG 28		0.85	0.82	0.79	0.77	0.67	0.76	0.73	0.74	0.73	0.76	0.74	0.79	0.7	0.72	0.11	0.09	0.09	0.05	0.07	0.09
37b	Sfi1 (ps)	both	CpG 29	CpG_29,30	CpG 29,30	CpG 29,30		0.4	0.4	0.43	0.38	0.38	0.37	0.33	0.36	0.35	0.36	0.36	0.38	0.35	0.35	0.12	NA	NA	0.04	0.02	0.04
37b	Sfi1 (ps)	both	CpG 30	CpG_29,30	CpG 29,30	CpG 29,30		0.4	0.4	0.43	0.38	0.38	0.37	0.33	0.36	0.35	0.36	0.36	0.38	0.35	0.35	0.12	NA	NA	0.04	0.02	0.04
38	Slc13a3	both	CpG 1	CpG_1	CpG 1	CpG 1	chr2:165164150-165164152	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38	Slc13a3	both	CpG 2	CpG_2	CpG 2	CpG 2	chr2:165164194-165164196	0.27	0.31	0.22	0.22	0.18	0.33	0.23	0.25	0.25	0.21	0.27	0.24	0.21	0.21	0.24	0.22	0.28	0.25	0.23	0.29
38	Slc13a3	both	CpG 3	CpG_3	CpG 3	CpG 3	chr2:165164225-165164227	0.08	0.07	0.07	0.03	0	0	0.09	0.1	0	0.1	0.05	0.08	0.06	0.03	0.1	0.08	0.1	0.03	0.08	0.04
38	Slc13a3	both	CpG 4	CpG_4	CpG 4	CpG 4	chr2:165164236-165164238	0.04	0.04	0.09	0.04	0.05	0.04	0.07	0.07	0.03	0.06	0.07	0.04	0.05	0.04	0.07	0.05	0.11	0.03	0.04	0.05
38	Slc13a3	both	CpG 5	CpG_5	CpG 5	CpG 5	chr2:165164241-165164243	0.01	0	0	0	0	0	0	0.02	0.04	0.01	0.03	0	0.01	0	0.06	0.01	0	0	0	0
38	Slc13a3	both	CpG 6	CpG_6	CpG 6	CpG 6	chr2:165164250-165164252	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38	Slc13a3	both	CpG 7	CpG_7	CpG 7	CpG 7	chr2:165164261-165164263	0.05	0.05	0.1	0.06	0.08	0.13	0.05	0.04	0.05	0.03	0.06	0.07	0.02	0.05	0.05	0.03	0.11	0.11	0.08	0.07

## Supplemental Table S7

### Epityper Methylation Ratios (Reduced Set: Spleen)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.		CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6 mm8)	C57BL/6 male spleen			F1 (mother BALB/c) female spleen				F1 (mother C57BL/6) female spleen				BALB/c male spleen										
			CpG 8	CpG_9				C57BL/6 male spleen (1)	C57BL/6 male spleen (2)	C57BL/6 male spleen (3)	C57BL/6 female spleen (1)	C57BL/6 female spleen (2)	C57BL/6 female spleen (3)	F1 (mother BALB/c) female spleen (A1)	F1 (mother BALB/c) female spleen (A2)	F1 (mother BALB/c) male spleen (A3)	F1 (mother BALB/c) male spleen (B1)	F1 (mother C57BL/6) female spleen (C1)	F1 (mother C57BL/6) female spleen (C2)	F1 (mother C57BL/6) male spleen (C3)	F1 (mother C57BL/6) male spleen (C4)	BALB/c male spleen (1)	BALB/c male spleen (2)	BALB/c male spleen (3)	BALB/c female spleen (1)	BALB/c female spleen (2)	BALB/c female spleen (3)		
38	Slc13a3	both	CpG 8	CpG_8		CpG 8	chr2:165164269-165164271	0.17	0.1	0.1	0.1	0.06	0.07	0.18	0.18	0.15	0.17	0.14	0.11	0.1	0.14	0.15	0.1	0.14	0.09	0.09	0.08	0.09	
38	Slc13a3	both	CpG 9	CpG_9		CpG 9	chr2:165164294-165164296	0.11	0.08	0.07	0.06	0.08	0.08	0.11	0.1	0.09	0.09	0.16	0.12	0.04	0.1	0.08	0.12	0.1	0.13	0.07	0.08	0.09	0.09
38	Slc13a3	both	CpG 10	CpG_10.11.12.13		CpG 10.11.12.13	chr2:165164319-165164321	0.13	0.11	0.08	0.08	0.08	0.11	0.1	0.09	0.09	0.09	0.1	0.08	0.1	0.1	0.13	0.07	0.08	0.09	0.09	0.09	0.09	
38	Slc13a3	both	CpG 11	CpG_10.11.12.13		CpG 10.11.12.13	chr2:165164322-165164324	0.13	0.11	0.08	0.08	0.08	0.11	0.1	0.09	0.09	0.09	0.1	0.08	0.1	0.1	0.13	0.07	0.08	0.09	0.09	0.09	0.09	
38	Slc13a3	both	CpG 12	CpG_10.11.12.13		CpG 10.11.12.13	chr2:165164324-165164326	0.13	0.11	0.08	0.08	0.08	0.11	0.1	0.09	0.09	0.09	0.1	0.08	0.1	0.1	0.13	0.07	0.08	0.09	0.09	0.09	0.09	
38	Slc13a3	both	CpG 13	CpG_10.11.12.13		CpG 10.11.12.13	chr2:165164326-165164328	0.13	0.11	0.08	0.08	0.08	0.11	0.1	0.09	0.09	0.09	0.1	0.08	0.1	0.1	0.13	0.07	0.08	0.09	0.09	0.09	0.09	
38	Slc13a3	both	CpG 14	CpG_14.15		CpG 14.15	chr2:165164348-165164350	0.1	0.07	0.09	0.08	0.08	0.09	0.07	0.06	0.07	0.05	0.08	0.07	0.06	0.06	0.07	0.07	0.11	0.08	0.06	0.08	0.08	
38	Slc13a3	both	CpG 15	CpG_14.15		CpG 14.15	chr2:165164351-165164353	0.1	0.07	0.09	0.08	0.08	0.09	0.07	0.06	0.07	0.05	0.08	0.07	0.06	0.06	0.07	0.07	0.11	0.08	0.06	0.08	0.08	
38	Slc13a3	both	CpG 16	CpG_16.17		CpG 16.17	chr2:165164357-165164359	0.1	0.07	0.09	0.08	0.08	0.09	0.07	0.06	0.07	0.05	0.08	0.07	0.06	0.06	0.07	0.07	0.11	0.08	0.06	0.08	0.08	
38	Slc13a3	both	CpG 17	CpG_16.17		CpG 16.17	chr2:165164360-165164362	0.1	0.07	0.09	0.08	0.08	0.09	0.07	0.06	0.07	0.05	0.08	0.07	0.06	0.06	0.07	0.07	0.11	0.08	0.06	0.08	0.08	
38	Slc13a3	both	CpG 18	CpG_18.19.20		CpG 18.19.20	chr2:165164367-165164369	0.21	0.12	0.13	0.11	0.12	0.18	0.13	0.1	0.17	0.08	0.1	0.12	0.12	0.13	0.16	0.12	0.18	0.17	0.11	0.11	0.11	
38	Slc13a3	both	CpG 19	CpG_18.19.20		CpG 18.19.20	chr2:165164369-165164371	0.21	0.12	0.13	0.11	0.12	0.18	0.13	0.1	0.17	0.08	0.1	0.12	0.12	0.13	0.16	0.12	0.18	0.17	0.11	0.11	0.11	
38	Slc13a3	both	CpG 20	CpG_18.19.20		CpG 18.19.20	chr2:165164371-165164373	0.21	0.12	0.13	0.11	0.12	0.18	0.13	0.1	0.17	0.08	0.1	0.12	0.12	0.13	0.16	0.12	0.18	0.17	0.11	0.11	0.11	
38	Slc13a3	both	CpG 21	CpG_21		CpG 21	chr2:165164375-165164377	0.04	0.03	0.03	0.04	0.02	0.02	0.03	0.03	0.03	0.01	0.08	0.04	0.03	0.03	0.03	0.01	0.03	0.02	0	0	0	
38	Slc13a3	both	CpG 22	CpG_22.23		CpG 22.23	chr2:165164389-165164391	0.03	0.02	0.05	0.03	0.03	0.05	0.02	0.01	0.01	0.01	0.03	0.01	0.03	0.03	0.03	0.03	0.02	0.05	0.02	0.04	0.03	
38	Slc13a3	both	CpG 23	CpG_22.23		CpG 22.23	chr2:165164394-165164396	0.03	0.02	0.05	0.03	0.03	0.05	0.02	0.01	0.01	0.01	0.03	0.01	0.03	0.03	0.03	0.03	0.02	0.05	0.02	0.04	0.03	
38	Slc13a3	both	CpG 24	CpG_24.25.26		CpG 24.25.26	chr2:165164408-165164410	0.08	0.08	0.14	0.12	0.12	0.08	0.09	0.09	0.08	0.07	0.1	0.09	0.1	0.1	0.11	0.08	0.15	0.11	0.12	0.11	0.11	
38	Slc13a3	both	CpG 25	CpG_24.25.26		CpG 24.25.26	chr2:165164412-165164414	0.08	0.08	0.14	0.12	0.12	0.08	0.09	0.09	0.08	0.07	0.1	0.09	0.1	0.1	0.11	0.08	0.15	0.11	0.12	0.11	0.11	
38	Slc13a3	both	CpG 26	CpG_24.25.26		CpG 24.25.26	chr2:165164415-165164417	0.08	0.08	0.14	0.12	0.12	0.08	0.09	0.09	0.08	0.07	0.1	0.09	0.1	0.1	0.11	0.08	0.15	0.11	0.12	0.11	0.11	
38	Slc13a3	both	CpG 27	CpG_27		CpG 27	chr2:165164441-165164443	0.17	0.1	0.1	0.1	0.06	0.07	0.18	0.18	0.15	0.17	0.14	0.11	0.1	0.14	0.15	0.1	0.14	0.09	0.09	0.08	0.08	
38	Slc13a3	both	CpG 28	CpG_28		CpG 28	chr2:165164456-165164458	0.11	0.08	0.07	0.06	0.08	0.08	0.11	0.08	0.07	0.16	0.12	0.04	0.1	0.08	0.12	0.1	0.09	0.09	0.08	0.09	0.09	
38	Slc13a3	both	CpG 29	CpG_29.30.31.32		CpG 29.30.31.32	chr2:165164462-165164464	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
38	Slc13a3	both	CpG 30	CpG_29.30.31.32		CpG 29.30.31.32	chr2:165164467-165164469	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
38	Slc13a3	both	CpG 31	CpG_29.30.31.32		CpG 29.30.31.32	chr2:165164472-165164474	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
38	Slc13a3	both	CpG 32	CpG_29.30.31.32		CpG 29.30.31.32	chr2:165164474-165164476	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
42	Slc27a6	both	CpG 1	CpG_1		CpG 1	chr18:58682221-58682223	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
42	Slc27a6	both	CpG 2	CpG_2		CpG 2	chr18:58682185-58682187	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
42	Slc27a6	both	CpG 3	CpG_3.4		CpG 3.4	chr18:58682179-58682181	0.17	0.12	0.1	0.13	0.08	0.12	0.14	0.15	0.11	0.17	0.13	0.17	0.14	0.12	0.23	0.17	0.2	0.17	0.22	0.22	0.22	
42	Slc27a6	both	CpG 4	CpG_3.4		CpG 3.4	chr18:58682173-58682175	0.17	0.12	0.1	0.13	0.08	0.12	0.14	0.15	0.11	0.17	0.13	0.17	0.14	0.12	0.23	0.17	0.2	0.17	0.22	0.22	0.22	
42	Slc27a6	both	CpG 5	CpG_5		CpG 5	chr18:58682149-58682151	0.22	0.17	0.12	0.17	0.09	0.17	0.23	0.19	0.2	0.31	0.19	0.21	0.19	0.19	0.32	0.28	0.25	0.25	0.31	0.34	0.34	
42	Slc27a6	both	CpG 6	CpG_6		CpG 6	chr18:58682133-58682135	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
42	Slc27a6	both	CpG 7	CpG_7		CpG 7	chr18:58682113-58682115	0.27	0.31	0.21	0.23	0.17	0.2	0.25	0.29	0.26	0.32	0.29	0.33	0.28	0.26	0.43	0.34	0.36	0.34	0.41	0.4	0.4	
42	Slc27a6	both	CpG 8	CpG_8.9		CpG 8.9	chr18:58682083-58682085	0.29	0.26	0.24	0.23	0.18	0.18	0.29	0.33	0.3	0.35	0.33	0.34	0.3	0.32	0.46	0.36	0.4	0.39	0.45	0.44	0.44	
42	Slc27a6	both	CpG 9	CpG_8.9		CpG 8.9	chr18:58682077-58682079	0.29	0.26	0.24	0.23	0.18	0.18	0.29	0.33	0.3	0.35	0.33	0.34	0.3	0.32	0.46	0.36	0.4	0.39	0.45	0.44	0.44	

**Supplemental Table S7**  
**Epityper Methylation Ratios (Reduced Set: Spleen)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6 mm8)	C57BL/6 male spleen			C57BL/6 female spleen			F1 (mother BALB/c) female spleen				BALB/c male spleen									
							(1)	(2)	(3)	(1)	(2)	(3)	(A1)	(A2)	(A3)	(B1)	(C1)	(C2)	(C3)	(C4)	(1)	(2)	(3)	(1)	(2)	(3)
42	Slc27a6	both	CpG 10	CpG_10	CpG 10	chr18:58682065-58682067	0.35	0.33	0.22	0.27	0.18	0.26	0.32	0.36	0.31	0.41	0.36	0.41	0.35	0.33	0.53	0.41	0.43	0.43	0.48	0.5
42	Slc27a6	both	CpG 11	CpG_11	CpG 11.12	chr18:58682036-58682038	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
42	Slc27a6	both	CpG 12		CpG 11.12		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
44	Slc27a6	both	CpG 1	CpG_1	CpG 1	chr18:58686452-58686454	0.05	0.03	0.02	0.07	0.07	0.09	0.33	0.59	0.42	0.48	0.45	0.58	0.37	0.33	0.77	0.73	0.76	0.92	0.67	0.75
44	Slc27a6	both	CpG 2	CpG_2	CpG 2	chr18:58686444-58686446	0.14	0.13	0.15	0.19	0.13	0.13	0.46	0.59	0.49	0.47	0.49	0.59	0.45	0.43	0.76	0.72	0.78	0.87	0.79	0.78
44	Slc27a6	both	CpG 3	CpG_3	CpG 3	chr18:58686437-58686439	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
44	Slc27a6	both	CpG 4	CpG_4	CpG 4	chr18:58686398-58686400	0.14	0.13	0.15	0.19	0.13	0.13	0.46	0.59	0.49	0.47	0.49	0.59	0.45	0.43	0.76	0.72	0.78	0.87	0.79	0.78
44	Slc27a6	both	CpG 5	CpG_5	CpG 5	chr18:58686387-58686389	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
44	Slc27a6	both	CpG 6	CpG_6.7	CpG 6.7	chr18:58686372-58686374	0.23	0.22	0.15	0.23	0.21	0.21	0.45	0.55	0.45	0.58	0.48	0.55	0.47	0.46	0.85	0.77	0.73	0.76	0.77	0.86
44	Slc27a6	both	CpG 7	CpG_6.7	CpG 6.7	chr18:58686370-58686372	0.23	0.22	0.15	0.23	0.21	0.21	0.45	0.55	0.45	0.58	0.48	0.55	0.47	0.46	0.85	0.77	0.73	0.76	0.77	0.86
44	Slc27a6	both	CpG 8	CpG_8.9	CpG 8.9	chr18:58686366-58686368	0.23	0.22	0.15	0.23	0.21	0.21	0.45	0.55	0.45	0.58	0.48	0.55	0.47	0.46	0.85	0.77	0.73	0.76	0.77	0.86
44	Slc27a6	both	CpG 9	CpG_8.9	CpG 8.9	chr18:58686364-58686366	0.23	0.22	0.15	0.23	0.21	0.21	0.45	0.55	0.45	0.58	0.48	0.55	0.47	0.46	0.85	0.77	0.73	0.76	0.77	0.86
44	Slc27a6	both	CpG 10	CpG_10	CpG 10	chr18:58686343-58686345	0.03	0.05	0.06	0.07	0.02	0.1	0.32	0.55	0.45	0.4	0.41	0.43	0.31	0.25	0.63	0.57	0.55	0.79	0.61	0.66
44	Slc27a6	both	CpG 11	CpG_11	CpG 11	chr18:58686206-58686208	0.4	0.38	0.25	0.38	0.26	0.21	0.49	0.64	0.58	0.56	0.59	0.65	0.51	0.52	0.75	0.69	0.77	0.84	0.82	0.8
49	Zfp568	both	CpG 1	CpG_1	CpG 1	chr7:29692488-29692490	0.04	0.03	0.05	0.04	0.03	0.04	NA	0.03	0.02	NA	0.03	0.02	NA	NA	0.05	0.02	0.07	0.04	0.06	0.03
49	Zfp568	both	CpG 2	CpG_2.3	CpG 2.3	chr7:29692497-29692499	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 3	CpG_2.3	CpG 2.3	chr7:29692515-29692517	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 4	CpG_4	CpG 4	chr7:29692525-29692527	0.02	0.02	0.06	0.01	0.02	0.03	NA	0.01	0.01	NA	0.01	0.02	NA	NA	0.04	0.03	0.03	0.03	0.03	0.03
49	Zfp568	both	CpG 5	CpG_4.5		chr7:29692531-29692533	0.02	0.02	0.06	0.01	0.02	0.03	NA	0.01	0.01	NA	0.01	0.02	NA							
49	Zfp568	both	CpG 6	CpG_6	CpG 5	chr7:29692543-29692545	0.05	0.05	0.04	0.05	0.04	0.06	NA	0.05	0.06	NA	0.05	0.03	NA	NA	0.03	0.06	0.05	0.05	0.05	0.07
49	Zfp568	both	CpG 7	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692550-29692552	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 8	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692558-29692560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 9	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692561-29692563	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 10	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692564-29692566	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 11	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692567-29692569	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 12	CpG_12.13.14.15	CpG 11.12.13.14	chr7:29692573-29692575	0.07	0.07	0.11	0.03	0.07	0.06	NA	0.07	0.09	NA	0.08	0.08	NA	NA	0.07	0.08	0.08	0.1	0.08	0.11
49	Zfp568	both	CpG 13	CpG_12.13.14.15	CpG 11.12.13.14	chr7:29692578-29692580	0.07	0.07	0.11	0.03	0.07	0.06	NA	0.07	0.09	NA	0.08	0.08	NA	NA	0.07	0.08	0.08	0.1	0.08	0.11
49	Zfp568	both	CpG 14	CpG_12.13.14.15	CpG 11.12.13.14	chr7:29692581-29692583	0.07	0.07	0.11	0.03	0.07	0.06	NA	0.07	0.09	NA	0.08	0.08	NA	NA	0.07	0.08	0.08	0.1	0.08	0.11
49	Zfp568	both	CpG 15	CpG_12.13.14.15	CpG 11.12.13.14	chr7:29692583-29692585	0.07	0.07	0.11	0.03	0.07	0.06	NA	0.07	0.09	NA	0.08	0.08	NA	NA	0.07	0.08	0.08	0.1	0.08	0.11
49	Zfp568	both	CpG 16	CpG_16.17.18	CpG 15.16.17	chr7:29692604-29692606	0.06	0.06	0.15	0.12	0.11	0.07	NA	0.16	0.15	NA	0.12	0.13	NA	NA	0.09	0.07	0.05	0.06	0.07	0.11
49	Zfp568	both	CpG 17	CpG_16.17.18	CpG 15.16.17	chr7:29692607-29692609	0.06	0.06	0.15	0.12	0.11	0.07	NA	0.16	0.15	NA	0.12	0.13	NA	NA	0.09	0.07	0.05	0.06	0.07	0.11
49	Zfp568	both	CpG 18	CpG_16.17.18	CpG 15.16.17	chr7:29692613-29692615	0.06	0.06	0.15	0.12	0.11	0.07	NA	0.16	0.15	NA	0.12	0.13	NA	NA	0.09	0.07	0.05	0.06	0.07	0.11
49	Zfp568	both	CpG 19	CpG_19	CpG 18	chr7:29692644-29692646	0.1	0.04	0	0.03	0.05	0.02	NA	0.12	0.14	NA	0.09	0	NA	NA	0.07	0.06	0.01	0.03	0.03	0.01
49	Zfp568	both	CpG 20	CpG_20	CpG 19	chr7:29692651-29692653	0.03	0.01	0	0.06	0.05	0.02	NA	0	NA	NA	0	0	NA	NA	NA	0.06	0	NA	0.06	NA

## Supplemental Table S7 Epityper Methylation Ratios (Reduced Set: Spleen)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6 mm8)	C57BL/6 male spleen			C57BL/6 female spleen			F1 (mother BALB/c)				BALB/c male spleen					
							(1)	(2)	(3)	(1)	(2)	(3)	(A1)	(A2)	(A3)	(B1)	(C1)	(C2)	(C3)	(C4)	(1)	(2)
49	Zfp568	both	CpG 21	CpG_21	CpG 20	chr7:29692662-29692664	0.03	0.01	0	0.06	0.05	0.02	NA	0	NA	NA	0.05	0.06	0.02	0.04	0.01	NA
49	Zfp568	both	CpG 22	CpG_22.23.24	CpG 21.22.23	chr7:29692674-29692676	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 23	CpG_22.23.24	CpG 21.22.23	chr7:29692679-29692681	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 24	CpG_22.23.24	CpG 21.22.23	chr7:29692681-29692683	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
51	3110007F17Rik	C57BL/6	CpG 1	CpG_1		chrX:119220213-119220215	0.01	0.03	0.03	0.09	0.08	NA	0.07	0.06	NA	0.13	0.06	0.11	0.03	0		
51	3110007F17Rik	C57BL/6	CpG 2	CpG_2		chrX:119220222-119220224	0.01	0	0.04	0.09	0.06	NA	0.09	0.05	NA	NA	0.1	0.14	0.02	0.02		
51	3110007F17Rik	C57BL/6	CpG 3	CpG_3.4.5		chrX:119220240-119220242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
51	3110007F17Rik	C57BL/6	CpG 4	CpG_3.4.5		chrX:119220243-119220245	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
51	3110007F17Rik	C57BL/6	CpG 5	CpG_3.4.5		chrX:119220255-119220257	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
51	3110007F17Rik	C57BL/6	CpG 6	CpG_6		chrX:119220269-119220271	0	0	NA	0.07	0.08	NA	0.11	0.11	NA	0.05	0.07	0.16	0.02	0		
51	3110007F17Rik	C57BL/6	CpG 7	CpG_7		chrX:119220275-119220277	0.04	0.05	0.07	0.25	0.23	NA	0.28	0.28	NA	0.23	0.25	0.34	0.06	0.16		
51	3110007F17Rik	C57BL/6	CpG 8	CpG_8		chrX:119220292-119220294	NA	NA	0	NA	NA	NA	NA	0.08	NA	NA	0.2	NA	NA	NA		
51	3110007F17Rik	C57BL/6	CpG 9	CpG_9.10.11		chrX:119220299-119220301	0.06	0.04	0	0.17	0.18	NA	0.15	0.14	NA	0.16	0.19	0.2	0.03	0.06		
51	3110007F17Rik	C57BL/6	CpG 10	CpG_9.10.11		chrX:119220301-119220303	0.06	0.04	0	0.17	0.18	NA	0.15	0.14	NA	0.16	0.19	0.2	0.03	0.06		
51	3110007F17Rik	C57BL/6	CpG 11	CpG_9.10.11		chrX:119220306-119220308	0.06	0.04	0	0.17	0.18	NA	0.15	0.14	NA	0.16	0.19	0.2	0.03	0.06		
51	3110007F17Rik	C57BL/6	CpG 12	CpG_12		chrX:119220329-119220331	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
51	3110007F17Rik	C57BL/6	CpG 13	CpG_13.14		chrX:119220361-119220363	0.05	0.05	0.12	0.15	0.12	NA	0.15	0.1	NA	0.07	0.16	0.2	0.07	0.06		
51	3110007F17Rik	C57BL/6	CpG 14	CpG_13.14		chrX:119220367-119220369	0.05	0.05	0.12	0.15	0.12	NA	0.15	0.1	NA	0.07	0.16	0.2	0.07	0.06		
51	3110007F17Rik	C57BL/6	CpG 15	CpG_15		chrX:119220385-119220387	0.02	0.02	0.03	0.08	0.1	NA	0.08	0.07	NA	0.06	0.12	0.14	0.03	0.02		
51	3110007F17Rik	C57BL/6	CpG 16	CpG_16		chrX:119220397-119220399	0.03	0.05	NA	0.12	0.14	NA	0.11	0.14	NA	0.09	0.14	0.15	0.04	0.03		
51	3110007F17Rik	C57BL/6	CpG 17	CpG_17.18.19		chrX:119220403-119220405	0.05	0.04	0.04	0.15	0.13	NA	0.09	0.07	NA	NA	0.15	0.16	0.06	0.02		
51	3110007F17Rik	C57BL/6	CpG 18	CpG_17.18.19		chrX:119220405-119220407	0.05	0.04	0.04	0.15	0.13	NA	0.09	0.07	NA	NA	0.15	0.16	0.06	0.02		
51	3110007F17Rik	C57BL/6	CpG 19	CpG_17.18.19		chrX:119220414-119220416	0.05	0.04	0.04	0.15	0.13	NA	0.09	0.07	NA	NA	0.15	0.16	0.06	0.02		
51	3110007F17Rik	C57BL/6	CpG 20	CpG_20.21		chrX:119220419-119220421	0.03	0.05	0.04	0.11	0.14	NA	0.12	0.14	NA	0.07	0.11	0.2	0.05	0.03		
51	3110007F17Rik	C57BL/6	CpG 21	CpG_20.21		chrX:119220428-119220430	0.03	0.05	0.04	0.11	0.14	NA	0.12	0.14	NA	0.07	0.11	0.2	0.05	0.03		
51	3110007F17Rik	C57BL/6	CpG 22	CpG_22.23		chrX:119220442-119220444	0	0	0	0.12	0.04	NA	0.07	0.09	NA	0.05	0.05	0.11	0	0		
51	3110007F17Rik	C57BL/6	CpG 23	CpG_22.23		chrX:119220444-119220446	0	0	0	0.12	0.04	NA	0.07	0.09	NA	0.05	0.05	0.11	0	0		
51	3110007F17Rik	C57BL/6	CpG 24	CpG_24		chrX:119220473-119220475	0	0.01	0	0.17	0.12	NA	0.14	0.11	NA	NA	0.16	0.12	0	0		
51	3110007F17Rik	C57BL/6	CpG 25	CpG_25.26.27.28		chrX:119220477-119220479	0.07	0.06	0.06	0.21	0.19	NA	0.14	0.18	NA	NA	0.25	0.27	0.07	0.04		
51	3110007F17Rik	C57BL/6	CpG 26	CpG_25.26.27.28		chrX:119220481-119220483	0.07	0.06	0.06	0.21	0.19	NA	0.14	0.18	NA	NA	0.25	0.27	0.07	0.04		
51	3110007F17Rik	C57BL/6	CpG 27	CpG_25.26.27.28		chrX:119220483-119220485	0.07	0.06	0.06	0.21	0.19	NA	0.14	0.18	NA	NA	0.25	0.27	0.07	0.04		
51	3110007F17Rik	C57BL/6	CpG 28	CpG_25.26.27.28		chrX:119220486-119220488	0.07	0.06	0.06	0.21	0.19	NA	0.14	0.18	NA	NA	0.25	0.27	0.07	0.04		
51	3110007F17Rik	C57BL/6	CpG 29	CpG_29		chrX:119220503-119220505	0	0.01	0.01	0.06	0.05	NA	0.14	0.06	NA	0	0.13	0.09	0.01	0		
51	3110007F17Rik	C57BL/6	CpG 30	CpG_30		chrX:119220515-119220517	0	0.01	0.05	0.07	0.08	NA	0.09	0.06	NA	0	0.12	0.09	0.01	0.01		





## Supplemental Table S7 Epityper Methylation Ratios (Reduced Set: Spleen)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6 mm8)	C57BL/6 male spleen (1)	C57BL/6 male spleen (2)	C57BL/6 male spleen (3)	C57BL/6 female spleen (1)	C57BL/6 female spleen (2)	C57BL/6 female spleen (3)	F1 (mother BALB/c) female spleen (A1)	F1 (mother BALB/c) female spleen (A2)	F1 (mother BALB/c) male spleen (A3)	F1 (mother BALB/c) male spleen (B1)	F1 (mother C57BL/6) female spleen (C1)	F1 (mother C57BL/6) female spleen (C2)	F1 (mother C57BL/6) male spleen (C3)	F1 (mother C57BL/6) male spleen (C4)	BALB/c male spleen (1)	BALB/c male spleen (2)	BALB/c male spleen (3)	BALB/c female spleen (1)	BALB/c female spleen (2)	BALB/c female spleen (3)	
56	3110007F17Rik	BALB/c	CpG 30	CpG 30	CpG 30		0.24	0.21	0.28	0.21	0.31	0.36	0.19	0.17	0.33	0.38	0.3	0.29	0.38	0.29							
56	3110007F17Rik	BALB/c	CpG 31	CpG 31	CpG 31		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
58	Zfp568	BALB/c	CpG 1	CpG 1	CpG 1		0.45	0.36	0.8	0.24	0.53	0.38	0.36	0.38	0.39	0.45	0.3	0.22	0.23	0.22							
58	Zfp568	BALB/c	CpG 2	CpG 2.3	CpG 2.3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
58	Zfp568	BALB/c	CpG 3	CpG 2.3	CpG 2.3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
58	Zfp568	BALB/c	CpG 4	CpG 4.5	CpG 4.5		0.82	0.81	0.81	0.77	0.8	0.86	0.75	0.74	0.8	0.64	0.8	0.66	0.73	0.71							
58	Zfp568	BALB/c	CpG 5	CpG 4.5	CpG 4.5		0.82	0.81	0.81	0.77	0.8	0.86	0.75	0.74	0.8	0.64	0.8	0.66	0.73	0.71							
58	Zfp568	BALB/c	CpG 6	CpG 6.7	CpG 6.7																						
58	Zfp568	BALB/c	CpG 7	CpG 6.7	CpG 6.7																						
58	Zfp568	BALB/c	CpG 8	CpG 8	CpG 8																						
58	Zfp568	BALB/c	CpG 9	CpG 9.10	CpG 9.10																						
58	Zfp568	BALB/c	CpG 10	CpG 9.10	CpG 9.10																						
58	Zfp568	BALB/c	CpG 11	CpG 11	CpG 11																						
58	Zfp568	BALB/c	CpG 12	CpG 12	CpG 12																						

## Supplemental Table S8

### Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male testis			F1 (mother BALB/c male testis)				BALB/c male testis			Methylation Ratios				
							(1)	(2)	(3)	(A3)	(B1)	(C3)	(C4)	(1)	(2)	(3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation
02	1600021P15Rik	both	CpG 1	CpG_1	CpG 1	chr16:28834032-28834034	0.92	0.88	0.87	0.93	0.87	0.84	0.89	0.89	0.95	0.84	0.06	0.3	0.58	0.76	0.93
02	1600021P15Rik	both	CpG 2	CpG_2	CpG 2	chr16:28833991-28833993	0.93	0.86	0.82	NA	NA	0.79	0.65	1	0.85	0.83	0	0.36	0.56	NA	0.95
02	1600021P15Rik	both	CpG 3	CpG_3	CpG 3	chr16:28833971-28833973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
02	1600021P15Rik	both	CpG 4	CpG_4.5	CpG 4.5	chr16:28833936-28833938	0.95	0.97	0.98	0.97	0.96	0.94	0.95	0.93	0.97	0.97	0.04	0.24	0.56	0.77	0.98
02	1600021P15Rik	both	CpG 5	CpG_4.5	CpG 4.5	chr16:28833924-28833926	0.95	0.97	0.98	0.97	0.96	0.94	0.95	0.93	0.97	0.97	0.04	0.24	0.56	0.77	0.98
02	1600021P15Rik	both	CpG 6	CpG_6	CpG 6	chr16:28833915-28833917	0.95	0.79	0.99	0.92	1	0.97	0.91	0.98	0.71	1	0.05	0.32	0.64	0.84	1
02	1600021P15Rik	both	CpG 7	CpG_7	CpG 7					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
02	1600021P15Rik	both	CpG 8	CpG_8	CpG 8	chr16:28833818-28833820	0.78	0.94	0.85	0.84	0.84	0.85	0.86	0.82	0.9	0.83	0.09	0.34	0.56	0.69	0.93
02	1600021P15Rik	both	CpG 9	CpG_9	CpG 9	chr16:28833762-28833764	0.78	0.94	0.85	0.84	0.84	0.85	0.86	0.82	0.9	0.83	0.09	0.34	0.56	0.69	0.93
02	1600021P15Rik	both	CpG 10	CpG_10	CpG 10	chr16:28833732-28833734	0.99	1	1	1	1	1	1	1	1	1	0.24	0.49	0.72	0.96	1
05	Asb4	both	CpG 1	CpG_1	CpG 1	chr6:5333237-5333239	0.04	0.05	0.09	0.42	0.47	0.39	0.38	0.74	0.66	0.72	0.04	0.44	0.67	0.86	0.97
05	Asb4	both	CpG 2	CpG_2	CpG 2	chr6:5333300-5333302	0.04	0.04	0.04	0.24	0.33	0.21	0.22	0.49	0.35	0.38	0.05	0.42	0.69	0.86	0.95
05	Asb4	both	CpG 3	CpG_3	CpG 3	chr6:5333357-5333359	0.18	0.22	0.24	0.43	0.47	0.41	0.42	0.58	0.57	0.55	0.18	0.45	0.68	0.77	1
05	Asb4	both	CpG 4	CpG_4	CpG 4	chr6:5333384-5333386	0.18	0.22	0.24	0.43	0.47	0.41	0.42	0.58	0.57	0.55	0.18	0.45	0.68	0.77	1
05	Asb4	both	CpG 5	CpG_5	CpG 5	chr6:5333417-5333419	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
06	Asb4	both	CpG 1	CpG_1.2	CpG 1.2	chr6:5333724-5333726	0.1	0.1	0.06	0.05	0.05	0.05	0.06	0.18	0.07	0.17	0.04	0.43	0.59	0.85	0.97
06	Asb4	both	CpG 2	CpG_1.2	CpG 1.2	chr6:5333721-5333723	0.1	0.1	0.06	0.05	0.05	0.05	0.06	0.18	0.07	0.17	0.04	0.43	0.59	0.85	0.97
06	Asb4	both	CpG 3	CpG_3	CpG 3	chr6:5333659-5333661	0.14	0.28	0.23	0.24	0.23	0.2	0.16	0.45	0.24	0.31	0.13	0.5	0.6	0.78	0.95
06	Asb4	both	CpG 4	CpG_4	CpG 4	chr6:5333625-5333627	0.14	0.28	0.23	0.24	0.23	0.2	0.16	0.45	0.24	0.31	0.13	0.5	0.6	0.78	0.95
06	Asb4	both	CpG 5	CpG_5	CpG 5	chr6:5333605-5333607	0.08	0.01	0.1	0.14	0.05	0.05	0.05	0.26	0.1	0.23	0.06	0.39	0.56	0.83	0.96
07	Asb4	both	CpG 1	CpG_1.2	CpG 1.2	chr6:5334203-5334205	0.02	0.03	0.03	0.05	0.05	0.04	0.04	0.08	0.05	0.08	0.01	0.29	0.46	0.74	0.98
07	Asb4	both	CpG 2	CpG_1.2	CpG 1.2	chr6:5334200-5334202	0.02	0.03	0.03	0.05	0.05	0.04	0.04	0.08	0.05	0.08	0.01	0.29	0.46	0.74	0.98
07	Asb4	both	CpG 3	CpG_3.4.5	CpG 3.4.5	chr6:5334181-5334183	0.05	0.02	0.03	0.08	0.07	0.08	0.11	0.09	0.06	0.01	0.07	NA	0.46	0.72	0.88
07	Asb4	both	CpG 4	CpG_3.4.5	CpG 3.4.5	chr6:5334179-5334181	0.05	0.02	0.03	0.08	0.07	0.08	0.11	0.09	0.06	0.01	0.07	NA	0.46	0.72	0.88
07	Asb4	both	CpG 5	CpG_3.4.5	CpG 3.4.5	chr6:5334177-5334179	0.05	0.02	0.03	0.08	0.07	0.08	0.11	0.09	0.06	0.01	0.07	NA	0.46	0.72	0.88
07	Asb4	both	CpG 6	CpG_6.7	CpG 6.7	chr6:5334098-5334100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
07	Asb4	both	CpG 7	CpG_6.7	CpG 6.7	chr6:5334087-5334089	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
07	Asb4	both	CpG 8	CpG_8	CpG 8	chr6:5334053-5334055	0.02	0.03	0.01	0.06	0.02	0.01	0.04	0.12	0.05	0.04	0.02	0.4	0.51	0.74	0.94
07	Asb4	both	CpG 9	CpG_9.10	CpG 9.10	chr6:5334013-5334015	0.01	0.01	0.04	0.05	0.05	0.04	0.04	0.12	0.05	0.08	0.02	0.33	0.48	0.76	0.98
07	Asb4	both	CpG 10	CpG_9.10	CpG 9.10	chr6:5334007-5334009	0.01	0.01	0.04	0.05	0.05	0.04	0.04	0.12	0.05	0.08	0.02	0.33	0.48	0.76	0.98
09	Coro2a	both	CpG 1	CpG_1.2	CpG 1.2	chr4:46621092-46621094	0.94	0.89	0.89	0.91	0.89	0.91	0.93	0.89	0.89	0.93	0.08	0.61	0.75	0.92	0.98
09	Coro2a	both	CpG 2	CpG_1.2	CpG 1.2	chr4:46621096-46621098	0.94	0.89	0.89	0.91	0.89	0.91	0.93	0.89	0.89	0.93	0.08	0.61	0.75	0.92	0.98
09	Coro2a	both	CpG 3	CpG_3	CpG 3	chr4:46621101-46621103	0.98	0.91	0.93	0.9	0.9	0.92	0.95	0.93	0.86	0.91	0.08	0.63	0.77	0.89	0.98
09	Coro2a	both	CpG 4	CpG_4	CpG 4	chr4:46621124-46621126	0.83	0.8	0.87	0.87	0.86	0.9	0.87	0.86	0.86	0.86	0.16	0.59	0.7	0.82	0.93

## Supplemental Table S8

### Eptyper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG	CpG Unit C57BL/6	CpG	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male testis			F1 (mother BALB/c) male testis				BALB/c male testis			Methylation Ratios									
									(1)	(2)	(3)	(A3)	(B1)	(C3)	(C4)	(1)	(2)	(3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation					
09	Coro2a	both	CpG 5	CpG_5	CpG 5	CpG 5	CpG 5	chr4:46621249-46621251	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
09	Coro2a	both	CpG 6	CpG_6	CpG 6	CpG 6	CpG 6	chr4:46621253-46621255	0.99	0.97	0.94	0.92	0.91	0.86	0.95	0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
09	Coro2a	both	CpG 7	CpG_7	CpG 7	CpG 7	CpG 7	chr4:46621269-46621271	0.83	0.8	0.87	0.87	0.86	0.9	0.87	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
12	Coro2a	both	CpG 1	CpG_1	CpG 1	CpG 1	CpG 1	chr4:46621618-46621620	0.88	0.91	0.9	0.96	0.94	0.89	0.95	0.9	0.99	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
12	Coro2a	both	CpG 2	CpG_2	CpG 2	CpG 2	CpG 2	chr4:46621557-46621559	0.82	0.84	0.79	0.83	0.79	0.86	0.81	0.89	0.88	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
12	Coro2a	both	CpG 3	CpG_3	CpG 3	CpG 3	CpG 3	chr4:46621488-46621490	0.95	0.83	0.93	0.75	0.82	0.74	0.77	0.9	0.9	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
12	Coro2a	both	CpG 4	CpG_4	CpG 4	CpG 4	CpG 4	chr4:46621480-46621482	0.95	0.83	0.93	0.75	0.82	0.74	0.77													
12	Coro2a	both	CpG 5	CpG_5	CpG 4	CpG 4	CpG 4	chr4:46621440-46621442	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
12	Coro2a	both	CpG 6	CpG_6	CpG 5	CpG 5	CpG 5	chr4:46621410-46621412	0.99	0.9	0.95	0.99	0.9	0.94	0.9	0.89	0.84	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
12	Coro2a	both	CpG 7	CpG_7	CpG 6	CpG 6	CpG 6	chr4:46621371-46621373	0.89	0.9	0.84	0.78	0.93	0.78	0.79	0.74	0.72	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
13	Eps81	both	CpG 1	CpG_1.2	CpG 1.2	CpG 1.2	CpG 1.2	chr7:4081716-4081718	0.03	0.03	0.06	0.02	0.03	0.02	0.03	0.04	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
13	Eps81	both	CpG 2	CpG_1.2	CpG 1.2	CpG 1.2	CpG 1.2	chr7:4081720-4081722	0.03	0.03	0.06	0.02	0.03	0.02	0.03	0.04	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
13	Eps81	both	CpG 3	CpG_3.4	CpG 3.4	CpG 3.4	CpG 3.4	chr7:4081732-4081734	0.03	0.03	0.06	0.02	0.03	0.01	0.02	0.01	0.02	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
13	Eps81	both	CpG 4	CpG_3.4	CpG 3.4	CpG 3.4	CpG 3.4	chr7:4081735-4081737	0.03	0.03	0.06	0.02	0.03	0.01	0.02	0.01	0.02	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
13	Eps81	both	CpG 5	CpG_5	CpG 5	CpG 5	CpG 5	chr7:4081749-4081751	0.03	0.04	0.09	0.03	0.03	0.04	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
13	Eps81	both	CpG 6	CpG_6.7.8	CpG 6.7.8	CpG 6.7.8	CpG 6.7.8	chr7:4081769-4081771	0.07	0.07	0.08	0.06	0.07	0.07	0.06	0.08	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	
13	Eps81	both	CpG 7	CpG_6.7.8	CpG 6.7.8	CpG 6.7.8	CpG 6.7.8	chr7:4081773-4081775	0.07	0.07	0.08	0.06	0.07	0.07	0.06	0.08	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	
13	Eps81	both	CpG 8	CpG_6.7.8	CpG 6.7.8	CpG 6.7.8	CpG 6.7.8	chr7:4081783-4081785	0.07	0.07	0.08	0.06	0.07	0.07	0.06	0.08	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	
13	Eps81	both	CpG 9	CpG_9.10	CpG 9.1	CpG 9.1	CpG 9.1	chr7:4081794-4081796	0.02	0.02	0.04	0.02	0.01	0.01	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
13	Eps81	both	CpG 10	CpG_9.10	CpG 9.1	CpG 9.1	CpG 9.1	chr7:4081796-4081798	0.02	0.02	0.04	0.02	0.01	0.01	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
13	Eps81	both	CpG 11	CpG_11.12.13	CpG 11.12.13	CpG 11.12.13	CpG 11.12.13	chr7:4081823-4081825	0.02	0.02	0.05	0.03	0.03	0.03	0.02	0.05	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
13	Eps81	both	CpG 12	CpG_11.12.13	CpG 11.12.13	CpG 11.12.13	CpG 11.12.13	chr7:4081825-4081827	0.02	0.02	0.05	0.03	0.03	0.03	0.02	0.05	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
13	Eps81	both	CpG 13	CpG_11.12.13	CpG 11.12.13	CpG 11.12.13	CpG 11.12.13	chr7:4081827-4081829	0.02	0.02	0.05	0.03	0.03	0.03	0.02	0.05	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
13	Eps81	both	CpG 14	CpG_14	CpG 14	CpG 14	CpG 14	chr7:4081848-4081850	0.02	0.03	0.03	0.02	0.01	0.02	0.02	0.02	0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
13	Eps81	both	CpG 15	CpG_15	CpG 15	CpG 15	CpG 15	chr7:4081862-4081864	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
13	Eps81	both	CpG 16	CpG_16	CpG 16	CpG 16	CpG 16	chr7:4081867-4081869	0.06	NA	0.02	NA	NA	NA	NA	0.07	NA	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
13	Eps81	both	CpG 17	CpG_17	CpG 17	CpG 17	CpG 17	chr7:4081879-4081881	0	0.01	0	0.02	0	0.02	0.01	0.04	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
15	Eps81	both	CpG 1	CpG_1	CpG 1	CpG 1	CpG 1	chr7:4081509-4081511	0.04	0.03	0.04	0.03	0.03	0.22	0.04	0.16	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	
15	Eps81	both	CpG 2	CpG_2	CpG 2	CpG 2	CpG 2	chr7:4081482-4081484	0.04	0	0.05	0.04	0.02	0.11	0.01	0.02	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	
15	Eps81	both	CpG 3	CpG_3	CpG 3	CpG 3	CpG 3	chr7:4081414-4081416	0.02	0.01	0.02	0.04	0.02	0.04	0.02	0.03	0.01	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	
15	Eps81	both	CpG 4	CpG_4	CpG 4	CpG 4	CpG 4	chr7:4081398-4081400	0	0	0	0	0	0	0.02	0	0	0	0	0	0	0	0	0	0	0		
15	Eps81	both	CpG 5	CpG_5	CpG 5	CpG 5	CpG 5	chr7:4081366-4081368	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
15	Eps81	both	CpG 6	CpG_6	CpG 6	CpG 6	CpG 6	chr7:4081358-4081360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
15	Eps81	both	CpG 7	CpG_7.8	CpG 7.8	CpG 7.8	CpG 7.8	chr7:4081345-4081347	0.03	0.04	0.14	0.03	0.04	0.13	0.04	0.03	0.04	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	

## Supplemental Table S8

### Eptyper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male testis				F1 (mother BALB/c) male testis				BALB/c male testis			Methylation Ratios				
							C57BL/6 male testis (1)	C57BL/6 male testis (2)	C57BL/6 male testis (3)	F1 (mother BALB/c) male testis (A3)	F1 (mother BALB/c) male testis (B1)	F1 (mother C57BL/6) male testis (C3)	F1 (mother C57BL/6) male testis (C4)	BALB/c male testis (1)	BALB/c male testis (2)	BALB/c male testis (3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation	
15	Eps811	both	CpG 8	CpG_9.10	CpG 7.8	chr7:4081343-4081345	0.03	0.04	0.14	0.03	0.04	0.13	0.04	0.03	0.04	0.16	0.06	0.28	0.35	0.65	0.99	
15	Eps811	both	CpG 9	CpG_9.10	CpG 9.10	chr7:4081318-4081320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
15	Eps811	both	CpG 10	CpG_9.10	CpG 9.10	chr7:4081310-4081312	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
15	Eps811	both	CpG 11	CpG_11	CpG 11	chr7:4081300-4081302	0.02	0.04	0.04	0.02	0.03	0.08	0.04	0.03	0.03	0.04	0.04	0.28	0.37	0.61	0.9	
15	Eps811	both	CpG 12	CpG_12	CpG 12	chr7:4081289-4081291	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
15	Eps811	both	CpG 13	CpG_13.14	CpG 13.14	chr7:4081285-4081287	0.01	0.03	0.03	0.01	0.01	0.14	0.01	0.08	0.02	0.09	0.03	0.28	0.39	0.64	0.96	
15	Eps811	both	CpG 14	CpG_13.14	CpG 13.14	chr7:4081277-4081279	0.01	0.03	0.03	0.01	0.01	0.14	0.01	0.08	0.02	0.09	0.03	0.28	0.39	0.64	0.96	
15	Eps811	both	CpG 15	CpG_15.16	CpG 15.16	chr7:4081270-4081272	0.11	0.05	0.03	0.06	0.07	0.13	0.08	0.07	0.1	0.03	0.1	0.3	0.43	0.6	0.96	
15	Eps811	both	CpG 16	CpG_15.16	CpG 15.16	chr7:4081268-4081270	0.11	0.05	0.03	0.06	0.07	0.13	0.08	0.07	0.1	0.03	0.1	0.3	0.43	0.6	0.96	
15	Eps811	both	CpG 17	CpG_17	CpG 17	chr7:4081209-4081211	0.02	0.03	0.01	0.01	0	0.03	0.01	0.01	0	0.03	0.02	0.27	0.34	0.62	0.93	
15	Eps811	both	CpG 18	CpG_18	CpG 18	chr7:4081192-4081194	0.04	0.04	0.01	0.01	0.04	0.43	0.05	0.04	0.01	0	0.04	0.27	0.41	0.69	0.98	
19	Isoc2b	both	CpG 1	CpG_1	CpG 1	chr7:4468813-4468815	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
19	Isoc2b	both	CpG 2	CpG_2	CpG 2	chr7:4468830-4468832	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
19	Isoc2b	both	CpG 3	CpG_3	CpG 3	chr7:4468845-4468847	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
19	Isoc2b	both	CpG 4	CpG_4	CpG 4	chr7:4468862-4468864	0.01	0.03	0.04	0.07	0.09	0.09	0.07	0.16	0.12	0.1	0.01	0.29	0.5	0.79	0.95	
19	Isoc2b	both	CpG 5	CpG_5	CpG 5	chr7:4468965-4468967	0	0	0.02	0.04	0.04	0.04	0.02	0.18	0.1	0.07	0	0.31	0.54	0.77	1	
19	Isoc2b	both	CpG 6	CpG_6.7	CpG 6.7	chr7:4469012-4469014	0.04	0.02	0.04	0.08	0.07	0.06	0.03	0.17	0.1	0.1	0.04	0.32	0.55	0.8	0.99	
19	Isoc2b	both	CpG 7	CpG_6.7	CpG 6.7	chr7:4469014-4469016	0.04	0.02	0.04	0.08	0.07	0.06	0.03	0.17	0.1	0.1	0.04	0.32	0.55	0.8	0.99	
19	Isoc2b	both	CpG 8	CpG_8	CpG 8	chr7:4469055-4469057	0.06	0.06	0.07	0.1	0.1	0.09	0.08	0.24	0.17	0.13	0.06	0.34	0.55	0.78	0.95	
19	Isoc2b	both	CpG 9	CpG_9	CpG 9	chr7:4469061-4469063	0.05	0.06	0.02	0.11	0.16	0.1	0.2	0.28	0.08	0.09	0.05	0.29	0.48	0.99	0.96	
19	Isoc2b	both	CpG 10	CpG_10.11	CpG 10.11	chr7:4469080-4469082	0.05	0.07	0.05	0.1	0.09	0.07	0.06	0.23	0.15	0.11	0.07	0.33	0.53	0.76	0.98	
19	Isoc2b	both	CpG 11	CpG_10.11	CpG 10.11	chr7:4469087-4469089	0.05	0.07	0.05	0.1	0.09	0.07	0.06	0.23	0.15	0.11	0.07	0.33	0.53	0.76	0.98	
19	Isoc2b	both	CpG 12	CpG_12	CpG 12	chr7:4469099-4469101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
21	Isoc2b	both	CpG 1	CpG_1	CpG 1	chr7:4469133-4469135	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
21	Isoc2b	both	CpG 2	CpG_2	CpG 2	chr7:4469138-4469140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
21	Isoc2b	both	CpG 3	CpG_3	CpG 3	chr7:4469148-4469150	0.17	NA	0.06	NA	0.21	0.14	NA	NA	0.18	0.05	0.29	0.39	0.45	0.68	0.65	
21	Isoc2b	both	CpG 4	CpG_4	CpG 4	chr7:4469163-4469165	0	0	0	NA	0.01	0	NA	0.16	0	0.01	0	0.25	0.5	0.69	0.98	
21	Isoc2b	both	CpG 5	CpG_5	CpG 5	chr7:4469169-4469171	0.03	0.04	0.05	NA	0.06	0.05	NA	0.22	0.06	0.07	0.02	0.31	0.54	0.72	0.95	
21	Isoc2b	both	CpG 6	CpG_6	CpG 6	chr7:4469192-4469194	0.04	0.04	0.11	NA	0.07	0.08	NA	0.2	0.05	0.16	0.07	0.32	0.51	0.64	0.88	
21	Isoc2b	both	CpG 7	CpG_7	CpG 7	chr7:4469206-4469208	0.03	0	0.03	NA	0.05	0.04	NA	0.28	0.04	0.07	0.02	0.42	0.6	0.79	0.96	
21	Isoc2b	both	CpG 8	CpG_8	CpG 8	chr7:4469226-4469228	0.02	0.03	0.03	NA	0.04	0.03	NA	0.19	0.04	0.07	0.03	0.3	0.51	0.67	0.91	
21	Isoc2b	both	CpG 9	CpG_9	CpG 9	chr7:4469259-4469261	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
21	Isoc2b	both	CpG 10	CpG_10.11	CpG 10.11	chr7:4469271-4469273	0.02	0.01	0.06	NA	0.04	0.04	NA	0.19	0.03	0.11	0.01	0.3	0.52	0.71	0.97	
21	Isoc2b	both	CpG 11	CpG_10.11	CpG 10.11	chr7:4469273-4469275	0.02	0.01	0.06	NA	0.04	0.04	NA	0.19	0.03	0.11	0.01	0.3	0.52	0.71	0.97	

**Supplemental Table S8**  
**Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male testis			F1 (mother BALB/c) male testis				BALB/c male testis			Methylation Ratios				
							C57BL/6 male testis (1)	C57BL/6 male testis (2)	C57BL/6 male testis (3)	F1 (mother BALB/c) male testis (A3)	F1 (mother BALB/c) male testis (B1)	F1 (mother C57BL/6) male testis (C3)	F1 (mother C57BL/6) male testis (C4)	BALB/c male testis (1)	BALB/c male testis (2)	BALB/c male testis (3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation
21	Isoc2b	both	CpG 12	CpG_12.13.14	CpG 12.13.14	chr7:4469287-4469289	0.01	0	0.02	NA	0.02	0.02	NA	0.16	0.01	0.04	0.01	0.24	0.4	0.63	0.93
21	Isoc2b	both	CpG 13	CpG_12.13.14	CpG 12.13.14	chr7:4469289-4469291	0.01	0	0.02	NA	0.02	0.02	NA	0.16	0.01	0.04	0.01	0.24	0.4	0.63	0.93
21	Isoc2b	both	CpG 14	CpG_12.13.14	CpG 12.13.14	chr7:4469292-4469294	0.01	0	0.02	NA	0.02	0.02	NA	0.16	0.01	0.04	0.01	0.24	0.4	0.63	0.93
21	Isoc2b	both	CpG 15	CpG_15.16.17	CpG 15.16.17	chr7:4469305-4469307	0.09	0.09	0.1	NA	0.12	0.12	NA	0.25	0.09	0.17	0.09	0.33	0.52	0.71	0.96
21	Isoc2b	both	CpG 16	CpG_15.16.17	CpG 15.16.17	chr7:4469308-4469310	0.09	0.09	0.1	NA	0.12	0.12	NA	0.25	0.09	0.17	0.09	0.33	0.52	0.71	0.96
21	Isoc2b	both	CpG 17	CpG_15.16.17	CpG 15.16.17	chr7:4469312-4469314	0.09	0.09	0.1	NA	0.12	0.12	NA	0.25	0.09	0.17	0.09	0.33	0.52	0.71	0.96
21	Isoc2b	both	CpG 18	CpG_18	CpG 18	chr7:4469345-4469347	0.17	NA	0.06	NA	0.21	0.14	NA	NA	0.18	0.05	0.29	0.39	0.45	0.68	0.65
21	Isoc2b	both	CpG 19	CpG_19	CpG 19	chr7:4469372-4469374	0	0.04	0	NA	0.04	0.02	NA	0.23	0.04	0.07	0.01	0.29	0.56	0.66	0.94
21	Isoc2b	both	CpG 20	CpG_20	CpG 20	chr7:4469406-4469408	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22	Isoc2b	both	CpG 1	CpG_1	CpG 1	chr7:4469851-4469853	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22	Isoc2b	both	CpG 2	CpG_2.3	CpG 2.3	chr7:4469816-4469818	0.05	0.1	0.02	0.07	0.1	0.13	0.11	0.18	0.16	0.16	0.07	0.31	0.49	0.73	0.94
22	Isoc2b	both	CpG 3	CpG_2.3	CpG 2.3	chr7:4469808-4469810	0.05	0.1	0.02	0.07	0.1	0.13	0.11	0.18	0.16	0.16	0.07	0.31	0.49	0.73	0.94
22	Isoc2b	both	CpG 4	CpG_4	CpG 4	chr7:4469790-4469792	0.05	0.04	0.04	0.04	0.06	0.08	0.08	0.13	0.12	0.12	0.02	0.27	0.48	0.71	0.9
22	Isoc2b	both	CpG 5	CpG_5.6	CpG 5.6	chr7:4469764-4469766	0.05	0.07	0.2	0.06	0.07	0.11	0.09	0.18	0.13	0.21	0.04	0.27	0.47	0.68	0.89
22	Isoc2b	both	CpG 6	CpG_5.6	CpG 5.6	chr7:4469762-4469764	0.05	0.07	0.2	0.06	0.07	0.11	0.09	0.18	0.13	0.21	0.04	0.27	0.47	0.68	0.89
22	Isoc2b	both	CpG 7	CpG_7	CpG 7	chr7:4469693-4469695	0.05	0	0.05	0.07	0.07	0.08	0.08	0.17	0.15	0.13	0.05	0.29	0.46	0.7	0.97
22	Isoc2b	both	CpG 8	CpG_8	CpG 8	chr7:4469660-4469662	0.06	0.05	0.09	0.04	0.03	0.08	0.04	0.31	NA	0.11	0.06	0.31	0.49	0.7	0.87
22	Isoc2b	both	CpG 9	CpG_9	CpG 9	chr7:4469648-4469650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22	Isoc2b	both	CpG 10	CpG_10	CpG 10	chr7:4469616-4469618	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22	Isoc2b	both	CpG 11	CpG_11	CpG 11	chr7:4469608-4469610	0.01	0.07	0.04	0.02	0.06	0.08	0.05	0.21	0.15	0.14	0.02	0.3	0.52	0.73	0.97
22	Isoc2b	both	CpG 12	CpG_12	CpG 12	chr7:4469598-4469600	0.14	0.02	0.08	0.04	0.13	0.06	0.12	0.19	0.2	0.17	0.05	0.35	0.6	0.7	1
22	Isoc2b	both	CpG 13	CpG_13	CpG 13	chr7:4469590-4469592	0.01	0.01	0.03	0.03	0.05	0.06	0.05	0.18	0.09	0.1	0.02	0.23	0.43	0.53	0.86
22	Isoc2b	both	CpG 14	CpG_14	CpG 14	chr7:4469583-4469585	0.05	0.04	0.07	0.05	0.08	0.09	0.06	0.21	0.15	0.15	0.05	0.34	0.5	0.73	0.91
22	Isoc2b	both	CpG 15	CpG_15.16.17	CpG 15.16.17	chr7:4469534-4469536	0.08	0.05	0.06	0.12	0.09	0.13	0.09	0.22	0.15	0.17	0.08	0.33	0.51	0.65	0.96
22	Isoc2b	both	CpG 16	CpG_15.16.17	CpG 15.16.17	chr7:4469530-4469532	0.08	0.05	0.06	0.12	0.09	0.13	0.09	0.22	0.15	0.17	0.08	0.33	0.51	0.65	0.96
22	Isoc2b	both	CpG 17	CpG_15.16.17	CpG 15.16.17	chr7:4469525-4469527	0.08	0.05	0.06	0.12	0.09	0.13	0.09	0.22	0.15	0.17	0.08	0.33	0.51	0.65	0.96
26	Pdgfrb	both	CpG 1	CpG_1	CpG 1	chr18:61191274-61191276	0.88	0.8	0.83	0.34	0.35	0.38	0.4	0.06	0.1	0.13	0.1	0.39	0.55	0.76	0.95
26	Pdgfrb	both	CpG 2	CpG_2	CpG 2	chr18:61191256-61191258	0.73	0.67	0.59	0.17	0.2	0.26	0.26	0.02	0.06	0.08	0.06	0.2	0.34	0.55	0.79
26	Pdgfrb	both	CpG 3	CpG_3	CpG 3	chr18:61191237-61191239	0.85	0.76	0.87	0.35	0.31	0.34	0.4	0.05	0.04	0.11	0.01	0.4	0.52	0.69	0.88
26	Pdgfrb	both	CpG 4	CpG_4.5	CpG 4.5	chr18:61191231-61191233	0.91	0.67	0.82	0.29	0.25	0.29	0.34	0.06	0.12	0.14	0.09	0.29	0.46	0.76	0.92
26	Pdgfrb	both	CpG 5	CpG_4.5	CpG 4.5	chr18:61191228-61191230	0.91	0.67	0.82	0.29	0.25	0.29	0.34	0.06	0.12	0.14	0.09	0.29	0.46	0.76	0.92
26	Pdgfrb	both	CpG 6	CpG_6	CpG 6	chr18:61191211-61191213	0.98	0.73	0.87	0.25	0.26	0.3	0.37	0.08	0.06	0.04	0.04	0.32	0.61	0.8	1
26	Pdgfrb	both	CpG 7	CpG_7	CpG 7	chr18:61191179-61191181	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26	Pdgfrb	both	CpG 8	CpG_8	CpG 8	chr18:61191168-61191170	0.91	0.7	0.87	0.36	0.36	0.32	0.4	0.06	0.05	0.06	0.07	0.39	0.58	0.84	0.99

## Supplemental Table S8

### Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male testis				BALB/c male testis				Methylation Ratios						
							(1)	(2)	(3)	F1 (mother)	F1 (mother)	F1 (mother)	F1 (mother)	BALB/c	BALB/c	BALB/c	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation
26	<b>Pdgfrb</b>	both	CpG 9	CpG_9	CpG 9	chr18:61191157-61191159	0.7	0.83	0.83	0.29	0.33	0.35	0.35	0.06	0.06	0.11	0.08	0.31	0.52	0.68	0.87
26	<b>Pdgfrb</b>	both	CpG 10	CpG_10.11	CpG 10.11	chr18:61191152-61191154	0.69	0.67	0.73	0.37	0.37	0.41	0.43	0.02	0.08	0.11	0.08	0.42	0.57	0.67	0.76
26	<b>Pdgfrb</b>	both	CpG 11	CpG_10.11	CpG 10.11	chr18:61191148-61191150	0.69	0.67	0.73	0.37	0.37	0.41	0.43	0.02	0.08	0.11	0.08	0.42	0.57	0.67	0.76
26	<b>Pdgfrb</b>	both	CpG 12	CpG_12	CpG 12	chr18:61191142-61191144	0.88	0.8	0.83	0.34	0.35	0.38	0.4	0.06	0.1	0.13	0.1	0.39	0.55	0.76	0.95
26	<b>Pdgfrb</b>	both	CpG 13	CpG_13	CpG 13	chr18:61191097-61191099	0.68	0.71	0.75	0.17	0.18	0.17	0.21	0.07	0.04	0.04	0.05	0.22	0.32	0.51	0.61
26	<b>Pdgfrb</b>	both	CpG 14	CpG_14	CpG 14	chr18:61191093-61191095	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26	<b>Pdgfrb</b>	both	CpG 15	CpG_15	CpG 15	chr18:61191078-61191080	0.78	0.84	0.85	0.29	0.29	0.31	0.31	0.02	0.03	0.06	0.04	0.35	0.58	0.83	0.98
26	<b>Pdgfrb</b>	both	CpG 16	CpG_16.17	CpG 16.17	chr18:61191056-61191058	0.69	0.73	0.79	0.3	0.33	0.32	0.36	0.07	0.08	0.09	0.09	0.37	0.59	0.79	0.92
26	<b>Pdgfrb</b>	both	CpG 17	CpG_16.17	CpG 16.17	chr18:61191043-61191045	0.69	0.73	0.79	0.3	0.33	0.32	0.36	0.07	0.08	0.09	0.09	0.37	0.59	0.79	0.92
35	<b>Sfi1</b>	both	CpG 1	CpG_1	CpG 1	chr11:3093387-3093389	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	<b>Sfi1</b>	both	CpG 2	CpG_2.3.4	CpG_2.3.4	chr11:3093430-3093432	0.84	0.82	0.84	0.7	0.65	0.66	0.68	0.24	0.2	0.3	0.1	0.4	0.63	0.82	0.98
35	<b>Sfi1</b>	both	CpG 3	CpG_2.3.4	CpG_2.3.4	chr11:3093438-3093440	0.84	0.82	0.84	0.7	0.65	0.66	0.68	0.24	0.2	0.3	0.1	0.4	0.63	0.82	0.98
35	<b>Sfi1</b>	both	CpG 4	CpG_2.3.4	CpG_2.3.4	chr11:3093441-3093443	0.84	0.82	0.84	0.7	0.65	0.66	0.68	0.24	0.2	0.3	0.1	0.4	0.63	0.82	0.98
35	<b>Sfi1</b>	both	CpG 5	CpG_5.6.7	CpG_5.6.7	chr11:3093444-3093446	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	<b>Sfi1</b>	both	CpG 6	CpG_5.6.7	CpG_5.6.7	chr11:3093447-3093449	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	<b>Sfi1</b>	both	CpG 7	CpG_5.6.7	CpG_5.6.7	chr11:3093459-3093461	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	<b>Sfi1</b>	both	CpG 8	CpG_8	CpG 8	chr11:3093467-3093469	0.9	0.86	0.84	0.82	0.83	NA	NA	0.49	0.48	0.48	0.04	0.46	0.66	0.77	0.94
35	<b>Sfi1</b>	both	CpG 9	CpG_9.10	CpG 9.10	chr11:3093473-3093475	NA	0.7	0.58	0.67	0.74	NA	NA	0.6	0.7	0.5	0.41	0.57	0.62	0.58	NA
35	<b>Sfi1</b>	both	CpG 10	CpG_9.10	CpG 9.10	chr11:3093475-3093477	NA	0.7	0.58	0.67	0.74	NA	NA	0.6	0.7	0.5	0.41	0.57	0.62	0.58	NA
35	<b>Sfi1</b>	both	CpG 11	CpG_11.12.13	CpG 11.12.13	chr11:3093480-3093482	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	<b>Sfi1</b>	both	CpG 12	CpG_11.12.13	CpG 11.12.13	chr11:3093482-3093484	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	<b>Sfi1</b>	both	CpG 13	CpG_11.12.13	CpG 11.12.13	chr11:3093485-3093487	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	<b>Sfi1</b>	both	CpG 14	CpG_14	CpG 14	chr11:3093511-3093513	0.83	0.76	0.77	0.72	0.66	0.66	0.69	0.3	0.26	0.34	0.1	0.42	0.62	0.77	0.92
35	<b>Sfi1</b>	both	CpG 15	CpG_15	CpG 15	chr11:3093550-3093552	1	1	1	1	1	1	1	0.56	0.42	0.63	0.07	0.77	1	1	1
35	<b>Sfi1</b>	both	CpG 16	CpG_16	CpG 16	chr11:3093560-3093562	0.83	0.76	0.77	0.72	0.66	0.66	0.69	0.3	0.26	0.34	0.1	0.42	0.62	0.77	0.92
35	<b>Sfi1</b>	both	CpG 17	CpG_17	CpG 17	chr11:3093585-3093587	0.81	0.73	0.75	0.74	0.72	0.69	0.72	0.35	0.27	0.37	0.06	0.4	0.61	0.77	0.9
35	<b>Sfi1</b>	both	CpG 18	CpG_18	CpG 18	chr11:3093598-3093600	0.75	0.72	0.75	0.75	0.7	0.65	0.68	0.29	0.26	0.33	0.03	0.32	0.55	0.78	0.94
35	<b>Sfi1</b>	both	CpG 19	CpG_19	CpG 19	chr11:3093629-3093631	0.91	0.88	0.92	0.89	0.81	0.83	0.86	0.48	0.38	0.5	0.06	0.38	0.61	0.84	0.99
35	<b>Sfi1</b>	both	CpG 20	CpG_20	CpG 20	chr11:3093639-3093641	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	<b>Sfi1</b>	both	CpG 21	CpG_21	CpG 21	chr11:3093662-3093664	0.87	0.82	0.83	0.8	0.79	0.79	0.81	0.37	0.31	0.41	0.07	0.42	0.65	0.84	0.97
35	<b>Sfi1</b>	both	CpG 22	CpG_22.23	CpG 22.23	chr11:3093674-3093676	0.89	0.88	0.88	0.87	0.85	0.87	0.85	0.43	0.38	0.53	0.05	0.47	0.65	0.94	0.95
35	<b>Sfi1</b>	both	CpG 23	CpG_22.23	CpG 22.23	chr11:3093677-3093679	0.89	0.88	0.88	0.87	0.85	0.87	0.85	0.43	0.38	0.53	0.05	0.47	0.65	0.94	0.95
35	<b>Sfi1</b>	both	CpG 24	CpG_24	CpG 24	chr11:3093687-3093689	0.96	0.99	1	0.94	0.93	0.94	0.95	0.58	0.57	0.65	0.09	0.48	0.71	0.89	1
35	<b>Sfi1</b>	both	CpG 25	CpG_25	CpG 25	chr11:3093700-3093702	0.9	0.86	0.84	0.82	0.83	NA	NA	0.49	0.48	0.48	0.04	0.46	0.66	0.77	0.94

## Supplemental Table S8

### Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.		CpG	CpG position (C57BL/6; mm8)	C57BL/6 male testis				BALB/c male testis			Methylation Ratios												
			CpG_1	CpG_2			(1)	(2)	(3)	F1 (mother BALB/c male testis (A3))	F1 (mother BALB/c male testis (B1))	F1 (mother C57BL/6 male testis (C3))	F1 (mother C57BL/6 male testis (C4))	BALB/c male testis (1)	BALB/c male testis (2)	BALB/c male testis (3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation					
35	Sfi1	both	CpG 26	CpG_26	CpG 26	chr11:3093783-3093785	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 1	CpG_1	CpG 1	chr11:3093387-3093389	NA	0.37	0.41	NA	0.34	0.25	0.23	NA	0.14	0.1	0.06	0.16	0.53	0.41	1	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 2	CpG_2	CpG 2	chr11:3093357-3093359	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 3	CpG_3	CpG 3	chr11:3093350-3093352	NA	0.37	0.41	NA	0.34	0.25	0.23	NA	0.14	0.1	0.06	0.16	0.53	0.41	1	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 4	CpG_4	CpG 4	chr11:3093342-3093344	NA	0.54	0.58	NA	0.54	0.58	0.45	NA	0.76	0.18	0.18	0.46	0.87	0.86	1	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 5	CpG_5,6	CpG 5,6	chr11:3093320-3093322	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 6	CpG_5,6	CpG 5,6	chr11:3093312-3093314	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 7	CpG_7	CpG 7	chr11:3093298-3093300	NA	0.56	0.6	NA	0.45	0.33	0.38	NA	0.23	0.09	0	0.2	0.72	0.59	0.97	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 8	CpG_8,9,10	CpG 8,9,10	chr11:3093293-3093295	NA	NA	0.6	NA	0.39	0.34	0.36	NA	0.23	0.01	0.03	0.19	0.72	0.55	0.99	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 9	CpG_8,9,10	CpG 8,9,10	chr11:3093291-3093293	NA	NA	0.6	NA	0.39	0.34	0.36	NA	0.23	0.01	0.03	0.19	0.72	0.55	0.99	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 10	CpG_8,9,10	CpG 8,9,10	chr11:3093289-3093291	NA	NA	0.6	NA	0.39	0.34	0.36	NA	0.23	0.01	0.03	0.19	0.72	0.55	0.99	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 11	CpG_11,12	CpG 11,12	chr11:3093264-3093266	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 12	CpG_11,12	CpG 11,12	chr11:3093255-3093257	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 13	CpG_13	CpG 13	chr11:3093189-3093191	NA	0.3	0.47	NA	0.31	0.22	0.28	NA	0.1	0.06	0.01	0.15	0.6	0.39	0.86	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 14	CpG_14	CpG 14	chr11:3093179-3093181	NA	NA	0.52	NA	0.26	NA	NA	NA	NA	0.02	0	NA	NA	NA	1	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 15	CpG_15,16	CpG 15,16	chr11:3093170-3093172	NA	NA	0.63	NA	0.51	0.45	0.49	NA	0.26	0.09	0	0.17	0.75	0.54	0.99	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 16	CpG_15,16	CpG 15,16	chr11:3093166-3093168	NA	NA	0.63	NA	0.51	0.45	0.49	NA	0.26	0.09	0	0.17	0.75	0.54	0.99	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 17	CpG_17,18	CpG 17,18	chr11:3093158-3093160	NA	0.58	0.66	NA	0.62	0.51	0.57	NA	0.37	0.27	0.06	0.38	0.69	0.64	0.8	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 18	CpG_17,18	CpG 17,18	chr11:3093154-3093156	NA	0.58	0.66	NA	0.62	0.51	0.57	NA	0.37	0.27	0.06	0.38	0.69	0.64	0.8	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 19	CpG_19	CpG 19	chr11:3093146-3093148	NA	0.64	0.58	NA	0.48	0.39	0.42	NA	0.16	0.09	0.04	0.2	0.68	0.56	0.93	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 20	CpG_20,21	CpG 20,21	chr11:3093136-3093138	NA	NA	0.56	NA	0.42	0.41	0.42	NA	0.23	0.23	0.19	0.3	0.61	NA	0.82	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 21	CpG_20,21	CpG 20,21	chr11:3093134-3093136	NA	NA	0.56	NA	0.42	0.41	0.42	NA	0.23	0.23	0.19	0.3	0.61	NA	0.82	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 22	CpG_22	CpG 22	chr11:3093085-3093087	NA	NA	0.66	NA	0.54	0.46	0.47	NA	0.27	0.13	0.01	0.21	0.72	0.61	1	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 23	CpG_23,24	CpG 23,24	chr11:3093065-3093067	NA	NA	0.67	NA	0.53	0.4	0.43	NA	0.24	0.14	0.04	0.26	0.67	0.55	0.95	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 24	CpG_23,24	CpG 23,24	chr11:3093058-3093060	NA	NA	0.67	NA	0.53	0.4	0.43	NA	0.24	0.14	0.04	0.26	0.67	0.55	0.95	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 25	CpG_25	CpG 25	chr11:3093044-3093046	NA	0.6	0.64	NA	0.54	0.42	0.45	NA	0.35	0.14	0	0.25	0.68	0.57	0.97	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 26	CpG_26,27	CpG 26,27	chr11:3093034-3093036	NA	0.79	0.74	NA	0.68	0.81	0.66	NA	0.73	0.03	0.27	0.51	0.79	0.69	0.91	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 27	CpG_26,27	CpG 26,27	chr11:3093030-3093032	NA	0.79	0.74	NA	0.68	0.81	0.66	NA	0.73	0.03	0.27	0.51	0.79	0.69	0.91	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 28	CpG_28,29	CpG 28,29	chr11:3093014-3093016	NA	0.87	0.73	NA	0.62	0.51	0.6	NA	0.47	0.31	0.07	0.35	0.75	0.64	0.97	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 29	CpG_28,29	CpG 28,29	chr11:3093009-3093011	NA	0.87	0.73	NA	0.62	0.51	0.6	NA	0.47	0.31	0.07	0.35	0.75	0.64	0.97	NA	NA	NA	NA	NA
37	Sfi1	both	CpG 30	CpG_30	CpG 30	chr11:3093000-3093002	NA	NA	0.72	NA	0.49	0.48	0.39	NA	0.18	0.18	0	0.32	0.76	0.6	1	NA	NA	NA	NA	NA
37b	Sfi1 (ps)	both	CpG 1	CpG_1	CpG 1		0.74	0.68	0.7	0.65	0.57	0.58	0.61	0.18	0.15	0.18	0.06	0.38	0.54	0.67	0.91	NA	NA	NA	NA	NA
37b	Sfi1 (ps)	both	CpG 2	CpG_2	CpG 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37b	Sfi1 (ps)	both	CpG 3	CpG_3	CpG 3		0.74	0.68	0.7	0.65	0.57	0.58	0.61	0.18	0.15	0.18	0.06	0.38	0.54	0.67	0.91	NA	NA	NA	NA	NA

## Supplemental Table S8

### Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male testis				BALB/c male testis				Methylation Ratios							
							(1)	(2)	(3)	(A3)	(B1)	(C3)	(C4)	(1)	(2)	(3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation	
37b	Sfi1 (ps)	both	CpG 4	CpG_4	CpG 4		0.86	0.82	0.83	0.76	0.66	0.72	0.75	0.14	0.17	0.26	0.09	0.43	0.67	0.83	0.93	
37b	Sfi1 (ps)	both	CpG 5	CpG_5	CpG 5		0.91	0.83	0.78	0.77	0.69	0.71	0.78	0.22	0.2	0.26	0.1	0.46	0.66	0.78	0.92	
37b	Sfi1 (ps)	both	CpG 6	CpG_6	CpG 6		0.93	0.92	0.95	0.81	0.79	0.82	0.83	0.21	0.17	0.21	0.02	0.45	0.64	0.82	0.96	
37b	Sfi1 (ps)	both	CpG 7	CpG_7,8	CpG 7,8		0.91	0.85	0.88	0.78	0.74	0.75	0.79	0.19	0.17	0.23	0.04	0.44	0.67	0.81	0.94	
37b	Sfi1 (ps)	both	CpG 8	CpG_7,8	CpG 7,8		0.91	0.85	0.88	0.78	0.74	0.75	0.79	0.19	0.17	0.23	0.04	0.44	0.67	0.81	0.94	
37b	Sfi1 (ps)	both	CpG 9	CpG_9,10,11	CpG 9,10,11		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
37b	Sfi1 (ps)	both	CpG 10	CpG_9,10,11	CpG 9,10,11		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
37b	Sfi1 (ps)	both	CpG 11	CpG_9,10,11	CpG 9,10,11		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
37b	Sfi1 (ps)	both	CpG 12	CpG_12	CpG 12		0.63	0.62	0.66	0.58	0.56	0.54	0.57	0.13	0.14	0.15	0.02	0.39	0.62	0.78	0.9	
37b	Sfi1 (ps)	both	CpG 13	CpG_13	CpG 13		NA	0.73	0.82	0.75	0.74	0.71	0.67	0.23	0.21	0.14	0	0.47	0.67	0.82	1	
37b	Sfi1 (ps)	both	CpG 14	CpG_14,15	CpG 14,15		0.89	0.85	0.87	0.79	0.76	0.79	0.82	0.23	0.16	0.24	0.01	0.36	0.66	0.79	0.95	
37b	Sfi1 (ps)	both	CpG 15	CpG_14,15	CpG 14,15		0.89	0.85	0.87	0.79	0.76	0.79	0.82	0.23	0.16	0.24	0.01	0.36	0.66	0.79	0.95	
37b	Sfi1 (ps)	both	CpG 16	CpG_16,17	CpG 16,17		0.74	0.71	0.76	0.71	0.68	0.7	0.7	0.39	0.33	0.42	0.13	0.59	0.66	0.73	0.79	
37b	Sfi1 (ps)	both	CpG 17	CpG_16,17	CpG 16,17		0.74	0.71	0.76	0.71	0.68	0.7	0.7	0.39	0.33	0.42	0.13	0.59	0.66	0.73	0.79	
37b	Sfi1 (ps)	both	CpG 18	CpG_18	CpG 18		0.89	0.77	0.83	0.78	0.71	0.77	0.78	0.23	0.21	0.25	0.04	0.41	0.63	0.77	0.84	
37b	Sfi1 (ps)	both	CpG 19	CpG_19,20	CpG 19,20		0.72	0.67	0.71	0.66	0.59	0.62	0.63	0.21	0.17	0.2	0.05	0.37	0.55	0.69	0.81	
37b	Sfi1 (ps)	both	CpG 20	CpG_19,20	CpG 19,20		0.72	0.67	0.71	0.66	0.59	0.62	0.63	0.21	0.17	0.2	0.05	0.37	0.55	0.69	0.81	
37b	Sfi1 (ps)	both	CpG 21	CpG_21	CpG 21		0.75	0.83	0.86	0.77	0.8	0.81	0.82	0.56	0.44	0.46	0.31	0.57	0.71	0.8	0.89	
37b	Sfi1 (ps)	both	CpG 22	CpG_22,23	CpG 22,23		0.78	0.76	0.79	0.69	0.73	0.74	0.76	0.29	0.23	0.29	0.07	0.45	0.64	0.76	0.88	
37b	Sfi1 (ps)	both	CpG 23	CpG_22,23	CpG 22,23		0.78	0.76	0.79	0.69	0.73	0.74	0.76	0.29	0.23	0.29	0.07	0.45	0.64	0.76	0.88	
37b	Sfi1 (ps)	both	CpG 24	CpG_24	CpG 24		0.73	0.69	0.84	0.65	0.7	0.75	0.73	0.42	0.18	0.26	0.03	0.48	0.66	0.8	0.91	
37b	Sfi1 (ps)	both	CpG 25	CpG_25,26	CpG 25,26		0.4	0.38	0.44	0.42	0.39	0.4	0.4	0.12	0.17	0.12	0.05	0.22	0.42	0.48	0.6	
37b	Sfi1 (ps)	both	CpG 26	CpG_25,26	CpG 25,26		0.4	0.38	0.44	0.42	0.39	0.4	0.4	0.12	0.17	0.12	0.05	0.22	0.42	0.48	0.6	
37b	Sfi1 (ps)	both	CpG 27	CpG_27	CpG 27		0.88	0.78	0.78	0.78	0.75	0.73	0.76	0.37	0.27	0.32	0.1	0.51	0.69	0.8	0.91	
37b	Sfi1 (ps)	both	CpG 28	CpG_28	CpG 28		0.84	0.79	0.83	0.81	0.75	0.75	0.78	0.23	0.2	0.25	0.03	0.49	0.71	0.85	0.98	
37b	Sfi1 (ps)	both	CpG 29	CpG_29,30	CpG 29,30		NA	0.36	0.4	0.35	0.35	0.35	0.36	0.15	NA	NA	0.05	0.25	0.34	0.37	0.41	
37b	Sfi1 (ps)	both	CpG 30	CpG_29,30	CpG 29,30		NA	0.36	0.4	0.35	0.35	0.35	0.36	0.15	NA	NA	0.05	0.25	0.34	0.37	0.41	
38	Slc13a3	both	CpG 1	CpG_1	CpG 1	chr2:165164150-165164152	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
38	Slc13a3	both	CpG 2	CpG_2	CpG 2	chr2:165164194-165164196	0.08	0.08	0.06	0.12	0.05	0.07	0.08	0.05	0.07	0.06	0.06	0.26	0.55	0.7	0.95	
38	Slc13a3	both	CpG 3	CpG_3	CpG 3	chr2:165164225-165164227	0	0	0	0	0	0	0	0	0	0	0	0.19	0.6	0.73	0.95	
38	Slc13a3	both	CpG 4	CpG_4	CpG 4	chr2:165164236-165164238	0.02	0.03	0.05	0.06	0.03	0.03	0.03	0.02	0.02	0.04	0.04	0.16	0.36	0.5	0.72	
38	Slc13a3	both	CpG 5	CpG_5	CpG 5	chr2:165164241-165164243	0.03	0	0	0	0	0	0	0	0	0	0	0	0.17	0.57	0.73	0.95
38	Slc13a3	both	CpG 6	CpG_6	CpG 6	chr2:165164250-165164252	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
38	Slc13a3	both	CpG 7	CpG_7	CpG 7	chr2:165164261-165164263	0.02	0.02	0.06	0.04	0.02	0.03	0.02	0.02	0.02	0.01	0.07	0.03	0.25	0.56	0.72	0.97

## Supplemental Table S8

### Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG	CpG	CpG position (C57BL/6; mm8)	C57BL/6 male testis				F1 (mother BALB/c) male testis				BALB/c male testis			Methylation Ratios				
							C57BL/6 male testis (1)	C57BL/6 male testis (2)	C57BL/6 male testis (3)	F1 (mother BALB/c) male testis (A3)	F1 (mother BALB/c) male testis (B1)	F1 (mother C57BL/6) male testis (C3)	F1 (mother C57BL/6) male testis (C4)	BALB/c male testis (1)	BALB/c male testis (2)	BALB/c male testis (3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation	
38	Slc13a3	both	CpG 8	CpG_8	CpG 8	chr2:165164269-165164271	0.03	0.05	0.05	0.09	0.04	0.1	0.08	0.05	0.04	0.04	0	0.36	0.71	0.85	1	
38	Slc13a3	both	CpG 9	CpG_9	CpG 9	chr2:165164294-165164296	0.04	0.07	0.01	0.05	0.01	0.05	0.05	0.02	0.05	0.02	0.03	0.33	0.64	0.64	0.91	
38	Slc13a3	both	CpG 10	CpG_10.11.12.13	CpG 10.11.12.13	chr2:165164319-165164321	0.06	0.07	0.06	0.06	0.05	0.07	0.06	0.06	0.06	0.06	0.06	0.28	0.56	0.73	0.98	
38	Slc13a3	both	CpG 11	CpG_10.11.12.13	CpG 10.11.12.13	chr2:165164322-165164324	0.06	0.07	0.06	0.06	0.05	0.07	0.06	0.06	0.06	0.06	0.06	0.28	0.56	0.73	0.98	
38	Slc13a3	both	CpG 12	CpG_10.11.12.13	CpG 10.11.12.13	chr2:165164324-165164326	0.06	0.07	0.06	0.06	0.05	0.07	0.06	0.06	0.06	0.06	0.06	0.28	0.56	0.73	0.98	
38	Slc13a3	both	CpG 13	CpG_10.11.12.13	CpG 10.11.12.13	chr2:165164326-165164328	0.06	0.07	0.06	0.06	0.05	0.07	0.06	0.06	0.06	0.06	0.06	0.28	0.56	0.73	0.98	
38	Slc13a3	both	CpG 14	CpG_14.15	CpG 14.15	chr2:165164348-165164350	0.04	0.05	0.07	0.05	0.05	0.05	0.04	0.03	0.05	0.07	0.08	0.21	0.4	0.52	0.91	
38	Slc13a3	both	CpG 15	CpG_14.15	CpG 14.15	chr2:165164351-165164353	0.04	0.05	0.07	0.05	0.05	0.05	0.04	0.03	0.05	0.07	0.08	0.21	0.4	0.52	0.91	
38	Slc13a3	both	CpG 16	CpG_16.17	CpG 16.17	chr2:165164357-165164359	0.04	0.05	0.07	0.05	0.05	0.05	0.04	0.03	0.05	0.07	0.08	0.21	0.4	0.52	0.91	
38	Slc13a3	both	CpG 17	CpG_16.17	CpG 16.17	chr2:165164360-165164362	0.04	0.05	0.07	0.05	0.05	0.05	0.04	0.03	0.05	0.07	0.08	0.21	0.4	0.52	0.91	
38	Slc13a3	both	CpG 18	CpG_18.19.20	CpG 18.19.20	chr2:165164367-165164369	0.14	0.15	0.15	0.14	0.1	0.18	0.12	0.12	0.11	0.13	0.15	0.48	0.67	0.74	0.84	
38	Slc13a3	both	CpG 19	CpG_18.19.20	CpG 18.19.20	chr2:165164369-165164371	0.14	0.15	0.15	0.14	0.1	0.18	0.12	0.12	0.11	0.13	0.15	0.48	0.67	0.74	0.84	
38	Slc13a3	both	CpG 20	CpG_18.19.20	CpG 18.19.20	chr2:165164371-165164373	0.14	0.15	0.15	0.14	0.1	0.18	0.12	0.12	0.11	0.13	0.15	0.48	0.67	0.74	0.84	
38	Slc13a3	both	CpG 21	CpG_21	CpG 21	chr2:165164375-165164377	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.04	0.04	0.27	0.56	0.73	0.99
38	Slc13a3	both	CpG 22	CpG_22.23	CpG 22.23	chr2:165164389-165164391	0.01	0.01	0.01	0	0	0.01	0.01	0.01	0.01	0.04	0.04	0.27	0.53	0.69	0.94	
38	Slc13a3	both	CpG 23	CpG_22.23	CpG 22.23	chr2:165164394-165164396	0.01	0.01	0.01	0	0	0.01	0.01	0.01	0.01	0.04	0.04	0.27	0.53	0.69	0.94	
38	Slc13a3	both	CpG 24	CpG_24.25.26	CpG 24.25.26	chr2:165164408-165164410	0.09	0.09	0.13	0.07	0.09	0.09	0.1	0.09	0.09	0.14	0.11	0.36	0.61	0.76	0.97	
38	Slc13a3	both	CpG 25	CpG_24.25.26	CpG 24.25.26	chr2:165164412-165164414	0.09	0.09	0.13	0.07	0.09	0.09	0.1	0.09	0.09	0.14	0.11	0.36	0.61	0.76	0.97	
38	Slc13a3	both	CpG 26	CpG_24.25.26	CpG 24.25.26	chr2:165164415-165164417	0.09	0.09	0.13	0.07	0.09	0.09	0.1	0.09	0.09	0.14	0.11	0.36	0.61	0.76	0.97	
38	Slc13a3	both	CpG 27	CpG_27	CpG 27	chr2:165164441-165164443	0.03	0.05	0.05	0.09	0.04	0.1	0.08	0.05	0.04	0.04	0	0.36	0.71	0.85	1	
38	Slc13a3	both	CpG 28	CpG_28	CpG 28	chr2:165164456-165164458	0.04	0.07	0.01	0.05	0.01	0.05	0.05	0.02	0.05	0.02	0.03	0.33	0.64	0.64	0.91	
38	Slc13a3	both	CpG 29	CpG_29.30.31.32	CpG 29.30.31.32	chr2:165164462-165164464	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
38	Slc13a3	both	CpG 30	CpG_29.30.31.32	CpG 29.30.31.32	chr2:165164467-165164469	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
38	Slc13a3	both	CpG 31	CpG_29.30.31.32	CpG 29.30.31.32	chr2:165164472-165164474	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
38	Slc13a3	both	CpG 32	CpG_29.30.31.32	CpG 29.30.31.32	chr2:165164474-165164476	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
42	Slc27a6	both	CpG 1	CpG_1	CpG 1	chr18:58682221-58682223	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
42	Slc27a6	both	CpG 2	CpG_2	CpG 2	chr18:58682185-58682187	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
42	Slc27a6	both	CpG 3	CpG_3.4	CpG 3.4	chr18:58682179-58682181	0.06	0.06	0.06	0.05	0.08	0.09	0.06	0.07	0.04	0.07	0.03	0.16	0.38	0.61	0.97	
42	Slc27a6	both	CpG 4	CpG_3.4	CpG 3.4	chr18:58682173-58682175	0.06	0.06	0.06	0.05	0.08	0.09	0.06	0.07	0.04	0.07	0.03	0.16	0.38	0.61	0.97	
42	Slc27a6	both	CpG 5	CpG_5	CpG 5	chr18:58682149-58682151	0.03	0.07	0.04	0.04	0.03	0.08	0.04	0.03	0.02	0.04	0	0.19	0.39	0.6	0.99	
42	Slc27a6	both	CpG 6	CpG_6	CpG 6	chr18:58682133-58682135	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
42	Slc27a6	both	CpG 7	CpG_7	CpG 7	chr18:58682113-58682115	0.05	0.04	0.07	0.07	0.06	0.08	0.05	0.03	0.04	0.07	0.02	0.17	0.4	0.6	0.97	
42	Slc27a6	both	CpG 8	CpG_8.9	CpG 8.9	chr18:58682083-58682085	0.07	0.11	0.1	0.1	0.08	0.11	0.06	0.11	0.07	0.13	0.1	0.23	0.5	0.67	0.98	
42	Slc27a6	both	CpG 9	CpG_8.9	CpG 8.9	chr18:58682077-58682079	0.07	0.11	0.1	0.1	0.08	0.11	0.06	0.11	0.07	0.13	0.1	0.23	0.5	0.67	0.98	

## Supplemental Table S8

### Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male testis				F1 (mother BALB/c male testis)				BALB/c male testis			Methylation Ratios				
							(1)	(2)	(3)	(A3)	(B1)	(C3)	(C4)	(1)	(2)	(3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation	
42	Slc27a6	both	CpG 10	CpG_10	CpG 10	chr18:58682065-58682067	0.08	0.12	0.08	0.07	0.08	0.1	0.05	0.09	0.03	0.07	0.03	0.21	0.46	0.62	0.94	
42	Slc27a6	both	CpG 11	CpG_11	CpG 11.12	chr18:58682036-58682038	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
42	Slc27a6	both	CpG 12		CpG 11.12																	
44	Slc27a6	both	CpG 1	CpG_1	CpG 1	chr18:58686452-58686454	0.01	0	0	0.08	0.06	0	0.07	0	0.18	0.01	0	0.2	0.25	0.68	0.94	
44	Slc27a6	both	CpG 2	CpG_2	CpG 2	chr18:58686444-58686446	0.05	0.03	0.07	0.18	0.06	0.09	0.14	0.09	0.31	0.05	0.02	0.29	0.31	0.65	0.93	
44	Slc27a6	both	CpG 3	CpG_3	CpG 3	chr18:58686437-58686439	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
44	Slc27a6	both	CpG 4	CpG_4	CpG 4	chr18:58686398-58686400	0.05	0.03	0.07	0.18	0.06	0.09	0.14	0.09	0.31	0.05	0.02	0.29	0.31	0.65	0.93	
44	Slc27a6	both	CpG 5	CpG_5	CpG 5	chr18:58686387-58686389	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
44	Slc27a6	both	CpG 6	CpG_6.7	CpG 6.7	chr18:58686372-58686374	0.07	0.03	0.06	0.19	0.06	0.13	0.14	0.16	0.28	0.06	0.04	0.31	0.28	0.57	0.76	
44	Slc27a6	both	CpG 7	CpG_6.7	CpG 6.7	chr18:58686370-58686372	0.07	0.03	0.06	0.19	0.06	0.13	0.14	0.16	0.28	0.06	0.04	0.31	0.28	0.57	0.76	
44	Slc27a6	both	CpG 8	CpG_8.9	CpG 8.9	chr18:58686366-58686368	0.07	0.03	0.06	0.19	0.06	0.13	0.14	0.16	0.28	0.06	0.04	0.31	0.28	0.57	0.76	
44	Slc27a6	both	CpG 9	CpG_8.9	CpG 8.9	chr18:58686364-58686366	0.07	0.03	0.06	0.19	0.06	0.13	0.14	0.16	0.28	0.06	0.04	0.31	0.28	0.57	0.76	
44	Slc27a6	both	CpG 10	CpG_10	CpG 10	chr18:58686343-58686345	0	0	0.01	0.08	0	0.09	0.04	0.03	0.17	0.02	0.01	0.23	0.28	0.68	0.97	
44	Slc27a6	both	CpG 11	CpG_11	CpG 11	chr18:58686206-58686208	0.02	0.18	0.12	0.36	0.05	0.05	0.15	0.17	0.34	0.15	0.04	0.26	0.33	0.74	0.96	
49	Zfp568	both	CpG 1	CpG_1	CpG 1	chr7:29692488-29692490	0.04	0.02	0.06	0.03	NA	0.02	0.03	0.03	NA	0.1	0.05	0.23	0.37	0.5	0.73	
49	Zfp568	both	CpG 2	CpG_2.3	CpG 2.3	chr7:29692497-29692499	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 3	CpG_2.3	CpG 2.3	chr7:29692515-29692517	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 4	CpG_4	CpG 4	chr7:29692525-29692527	0.03	0.02	0.04	0	NA	0	0.01	0.03	NA	0.04	0.01	0.23	0.45	0.69	0.96	
49	Zfp568	both	CpG 5	CpG_4.5		chr7:29692531-29692533	0.03	0.02	0.04	0	NA	0	0.01				0.01	0.23	0.45	0.69	0.96	
49	Zfp568	both	CpG 6	CpG_6	CpG 5	chr7:29692543-29692545	0.05	0.04	0.05	0.06	NA	0.04	0.06	0.04	NA	0.04	0.05	0.23	0.5	0.7	0.97	
49	Zfp568	both	CpG 7	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692550-29692552	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 8	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692558-29692560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 9	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692561-29692563	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 10	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692564-29692566	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 11	CpG_7.8.9.10.11	CpG 6.7.8.9.10	chr7:29692567-29692569	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
49	Zfp568	both	CpG 12	CpG_12.13.14.15	CpG 11.12.13.14	chr7:29692573-29692575	0.06	0.07	0.08	0.08	NA	0.09	0.09	0.08	NA	0.09	0.06	0.28	0.47	0.59	0.81	
49	Zfp568	both	CpG 13	CpG_12.13.14.15	CpG 11.12.13.14	chr7:29692578-29692580	0.06	0.07	0.08	0.08	NA	0.09	0.09	0.08	NA	0.09	0.06	0.28	0.47	0.59	0.81	
49	Zfp568	both	CpG 14	CpG_12.13.14.15	CpG 11.12.13.14	chr7:29692581-29692583	0.06	0.07	0.08	0.08	NA	0.09	0.09	0.08	NA	0.09	0.06	0.28	0.47	0.59	0.81	
49	Zfp568	both	CpG 15	CpG_12.13.14.15	CpG 11.12.13.14	chr7:29692583-29692585	0.06	0.07	0.08	0.08	NA	0.09	0.09	0.08	NA	0.09	0.06	0.28	0.47	0.59	0.81	
49	Zfp568	both	CpG 16	CpG_16.17.18	CpG 15.16.17	chr7:29692604-29692606	0.06	0.06	0.13	0.17	NA	0.17	0.15	0.05	NA	0.05	0.12	0.32	0.5	0.74	0.94	
49	Zfp568	both	CpG 17	CpG_16.17.18	CpG 15.16.17	chr7:29692607-29692609	0.06	0.06	0.13	0.17	NA	0.17	0.15	0.05	NA	0.05	0.12	0.32	0.5	0.74	0.94	
49	Zfp568	both	CpG 18	CpG_16.17.18	CpG 15.16.17	chr7:29692613-29692615	0.06	0.06	0.13	0.17	NA	0.17	0.15	0.05	NA	0.05	0.12	0.32	0.5	0.74	0.94	
49	Zfp568	both	CpG 19	CpG_19	CpG 18	chr7:29692644-29692646	0.04	0.01	0	0.07	NA	0.08	0.04	0.02	NA	0.01	0.06	0.29	0.44	0.65	0.75	
49	Zfp568	both	CpG 20	CpG_20	CpG 19	chr7:29692651-29692653	0.06	0.05	0	0.07	NA	0.09	0.12	0	NA	0	0.05	0.39	0.56	0.71	0.95	

## Supplemental Table S8

### Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6				BALB/c				Methylation Ratios						
							C57BL/6 male testis (1)	C57BL/6 male testis (2)	C57BL/6 male testis (3)	F1 (mother BALB/c male testis (A3))	F1 (mother BALB/c male testis (B1))	F1 (mother C57BL/6 male testis (C3))	F1 (mother C57BL/6 male testis (C4))	BALB/c male testis (1)	BALB/c male testis (2)	BALB/c male testis (3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation
49	Zfp568	both	CpG 21	CpG_21	CpG 20	chr7:29692662-29692664	0.06	0.05	0	0.07	NA	0.09	0.12	0	NA	0	0.05	0.39	0.56	0.71	0.95
49	Zfp568	both	CpG 22	CpG_22.23.24	CpG 21.22.23	chr7:29692674-29692676	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 23	CpG_22.23.24	CpG 21.22.23	chr7:29692679-29692681	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	Zfp568	both	CpG 24	CpG_22.23.24	CpG 21.22.23	chr7:29692681-29692683	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 1	CpG_1		chrX:119220213-119220215	NA	NA	0.06	NA	0.04	0.03	0.04				0.11	0.01	0.02	NA	NA
51	3110007F17Rik	C57BL/6	CpG 2	CpG_2		chrX:119220222-119220224	0	NA	0.03	NA	NA	0.02	0.02				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 3	CpG_3.4.5		chrX:119220240-119220242	NA	NA	NA	NA	NA	NA	NA				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 4	CpG_3.4.5		chrX:119220243-119220245	NA	NA	NA	NA	NA	NA	NA				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 5	CpG_3.4.5		chrX:119220255-119220257	NA	NA	NA	NA	NA	NA	NA				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 6	CpG_6		chrX:119220269-119220271	0	NA	0.04	NA	0	0.03	0.04				0	0	0	NA	NA
51	3110007F17Rik	C57BL/6	CpG 7	CpG_7		chrX:119220275-119220277	0.02	NA	0.08	NA	NA	0.02	0.12				0.14	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 8	CpG_8		chrX:119220292-119220294	NA	NA	NA	NA	0.05	NA	0.15				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 9	CpG_9.10.11		chrX:119220299-119220301	0	NA	0.1	NA	0.07	0.06	0.13				0.07	0.13	0.11	NA	NA
51	3110007F17Rik	C57BL/6	CpG 10	CpG_9.10.11		chrX:119220301-119220303	0	NA	0.1	NA	0.07	0.06	0.13				0.07	0.13	0.11	NA	NA
51	3110007F17Rik	C57BL/6	CpG 11	CpG_9.10.11		chrX:119220306-119220308	0	NA	0.1	NA	0.07	0.06	0.13				0.07	0.13	0.11	NA	NA
51	3110007F17Rik	C57BL/6	CpG 12	CpG_12		chrX:119220329-119220331	NA	NA	NA	NA	NA	NA	NA				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 13	CpG_13.14		chrX:119220361-119220363	0.08	NA	0.12	NA	0.03	0.07	0.06				0.09	0	0	NA	NA
51	3110007F17Rik	C57BL/6	CpG 14	CpG_13.14		chrX:119220367-119220369	0.08	NA	0.12	NA	0.03	0.07	0.06				0.09	0	0	NA	NA
51	3110007F17Rik	C57BL/6	CpG 15	CpG_15		chrX:119220385-119220387	0.05	NA	0.05	NA	0.08	0.04	0.03				0.04	0.08	0.05	NA	NA
51	3110007F17Rik	C57BL/6	CpG 16	CpG_16		chrX:119220397-119220399	0.15	NA	0.14	NA	0.09	0.11	0.12				0.05	0.09	0.02	NA	NA
51	3110007F17Rik	C57BL/6	CpG 17	CpG_17.18.19		chrX:119220403-119220405	0.04	NA	0.07	NA	NA	0.08	0.08				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 18	CpG_17.18.19		chrX:119220405-119220407	0.04	NA	0.07	NA	NA	0.08	0.08				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 19	CpG_17.18.19		chrX:119220414-119220416	0.04	NA	0.07	NA	NA	0.08	0.08				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 20	CpG_20.21		chrX:119220419-119220421	0.02	NA	0.03	NA	0.03	0.04	0.05				0	0.01	0.03	NA	NA
51	3110007F17Rik	C57BL/6	CpG 21	CpG_20.21		chrX:119220428-119220430	0.02	NA	0.03	NA	0.03	0.04	0.05				0	0.01	0.03	NA	NA
51	3110007F17Rik	C57BL/6	CpG 22	CpG_22.23		chrX:119220442-119220444	0	NA	0.03	NA	0	0	0				0	0	0	NA	NA
51	3110007F17Rik	C57BL/6	CpG 23	CpG_22.23		chrX:119220444-119220446	0	NA	0.03	NA	0	0	0				0	0	0	NA	NA
51	3110007F17Rik	C57BL/6	CpG 24	CpG_24		chrX:119220473-119220475	NA	NA	0.06	NA	NA	0.02	0				0.03	0.04	0	NA	NA
51	3110007F17Rik	C57BL/6	CpG 25	CpG_25.26.27.28		chrX:119220477-119220479	0.16	NA	0.08	NA	NA	0.06	0.06				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 26	CpG_25.26.27.28		chrX:119220481-119220483	0.16	NA	0.08	NA	NA	0.06	0.06				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 27	CpG_25.26.27.28		chrX:119220483-119220485	0.16	NA	0.08	NA	NA	0.06	0.06				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 28	CpG_25.26.27.28		chrX:119220486-119220488	0.16	NA	0.08	NA	NA	0.06	0.06				NA	NA	NA	NA	NA
51	3110007F17Rik	C57BL/6	CpG 29	CpG_29		chrX:119220503-119220505	0.02	NA	0.02	NA	0	0.01	0.02				0	0.01	0	NA	NA
51	3110007F17Rik	C57BL/6	CpG 30	CpG_30		chrX:119220515-119220517	0.01	NA	0.03	NA	0	0.01	0.01				0.01	0.01	0.01	NA	NA

## Supplemental Table S8

### Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG Unit C57BL/6	CpG Unit BALB/c	CpG position (C57BL/6; mm8)	C57BL/6 male testis				BALB/c male testis				Methylation Ratios													
							(1)	(2)	(3)	F1 (mother BALB/c male testis (A3))	F1 (mother BALB/c male testis (B1))	F1 (mother C57BL/6 male testis (C3))	F1 (mother C57BL/6 male testis (C4))	BALB/c male testis (1)	BALB/c male testis (2)	BALB/c male testis (3)	0% methylation	25% methylation	50% methylation	75% methylation	100% methylation							
53	3110007F17Rik	C57BL/6	CpG 1	CpG_1.2		chrX:119220546-119220548	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
53	3110007F17Rik	C57BL/6	CpG 2	CpG_1.2		chrX:119220541-119220543	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	3110007F17Rik	C57BL/6	CpG 5	CpG_3		chrX:119220515-119220517	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	3110007F17Rik	C57BL/6	CpG 6	CpG_4		chrX:119220503-119220505	0.03	0.01	0.03	NA	NA	0.19	0.02															
53	3110007F17Rik	C57BL/6	CpG 7	CpG_5.6.7		chrX:119220486-119220488	0.01	0	0.02	0	0	0.02	0															
53	3110007F17Rik	C57BL/6	CpG 8	CpG_5.6.7		chrX:119220483-119220485	0.01	0	0.02	0	0	0.02	0															
53	3110007F17Rik	C57BL/6	CpG 9	CpG_5.6.7		chrX:119220481-119220483	0.01	0	0.02	0	0	0.02	0															
53	3110007F17Rik	C57BL/6	CpG 10	CpG_8.9		chrX:119220477-119220479	0.01	0.01	0.06	0.02	0.05	0.06	0.03															
53	3110007F17Rik	C57BL/6	CpG 11	CpG_8.9		chrX:119220473-119220475	0.01	0.01	0.06	0.02	0.05	0.06	0.03															
53	3110007F17Rik	C57BL/6	CpG 12	CpG_10.11		chrX:119220444-119220446	0.05	0.05	0.04	0.04	0.05	0.09	0.05															
53	3110007F17Rik	C57BL/6	CpG 13	CpG_10.11		chrX:119220442-119220444	0.05	0.05	0.04	0.04	0.05	0.09	0.05															
53	3110007F17Rik	C57BL/6	CpG 14	CpG_12		chrX:119220428-119220430	NA	NA	0	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 15	CpG_13.14		chrX:119220419-119220421	0.05	0.06	0.04	0.08	0.08	0.19	0															
53	3110007F17Rik	C57BL/6	CpG 16	CpG_13.14		chrX:119220414-119220416	0.05	0.06	0.04	0.08	0.08	0.19	0															
53	3110007F17Rik	C57BL/6	CpG 17	CpG_15.16.17.18		chrX:119220405-119220407	NA	NA	NA	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 18	CpG_15.16.17.18		chrX:119220403-119220405	NA	NA	NA	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 19	CpG_15.16.17.18		chrX:119220397-119220399	NA	NA	NA	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 20	CpG_15.16.17.18		chrX:119220385-119220387	NA	NA	NA	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 21	CpG_19		chrX:119220367-119220369	NA	NA	NA	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 22	CpG_20		chrX:119220361-119220363	0.19	0.15	0.17	0.18	0.19	0.15	0.18															
53	3110007F17Rik	C57BL/6	CpG 23	CpG_21		chrX:119220329-119220331	0.08	0	0	0.05	0.18	0.17	0.05															
53	3110007F17Rik	C57BL/6	CpG 24	CpG_22.23.24.25		chrX:119220306-119220308	NA	NA	NA	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 25	CpG_22.23.24.25		chrX:119220301-119220303	NA	NA	NA	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 26	CpG_22.23.24.25		chrX:119220299-119220301	NA	NA	NA	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 27	CpG_22.23.24.25		chrX:119220292-119220294	NA	NA	NA	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 28	CpG_26.27		chrX:119220275-119220277	0.03	0.01	0.05	0.04	0.03	0.06	0.01															
53	3110007F17Rik	C57BL/6	CpG 29	CpG_26.27		chrX:119220269-119220271	0.03	0.01	0.05	0.04	0.03	0.06	0.01															
53	3110007F17Rik	C57BL/6	CpG 30	CpG_28		chrX:119220255-119220257	NA	0	0.04	NA	NA	NA	NA															
53	3110007F17Rik	C57BL/6	CpG 31	CpG_29.30		chrX:119220243-119220245	0.02	0	0.06	0.04	0.02	0.13	0.01															
53	3110007F17Rik	C57BL/6	CpG 32	CpG_29.30		chrX:119220240-119220242	0.02	0	0.06	0.04	0.02	0.13	0.01															
53	3110007F17Rik	C57BL/6	CpG 33	CpG_31		chrX:119220222-119220224	0.19	0.15	0.17	0.18	0.19	0.15	0.18															
53	3110007F17Rik	C57BL/6	CpG 34	CpG_32		chrX:119220213-119220215	NA	NA	NA	NA	NA	NA	NA															
55	Zfp568	C57BL/6	CpG 1	CpG_1		chr7:29692176-29692178	0.22	0.02	0.04	0.04	0.05	0.04	0.04															
55	Zfp568	C57BL/6	CpG 2	CpG_2		chr7:29692237-29692239	0	0.02	0.05	0.01	0.04	0.02	0.02															



**Supplemental Table S8**  
**Epityper Methylation Ratios (Reduced Set: Testis, Control DNA)**

Amplicon ID (Epi000xx)	Gene Symbol	Specificity	CpG No.	CpG position (C57BL/6; mm8)		Methylation Ratios													
				CpG Unit C57BL/6	CpG Unit BALB/c	C57BL/6 male testis (1)	C57BL/6 male testis (2)	C57BL/6 male testis (3)	F1 (mother BALB/c) male testis (A3)	F1 (mother BALB/c) male testis (B1)	F1 (mother C57BL/6) male testis (C3)	F1 (mother C57BL/6) male testis (C4)	BALB/c male testis (1)	BALB/c male testis (2)	BALB/c male testis (3)	0% methylation	25% methylation	50% methylation	75% methylation
56	3110007F17Rik	BALB/c	CpG 30	CpG 30	CpG 30	0.18	0.17	0.18	0.16	0.16	0.33	0.12	0.16	0.28	0.46	0.8	1	NA	NA
56	3110007F17Rik	BALB/c	CpG 31	CpG 31	CpG 31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
58	Zfp568	BALB/c	CpG 1	CpG 1	CpG 1	0.17	0.04	0.02	0.02	0.05	0.04	0.12	0.03	0.35	0.65	0.85	0.97	NA	NA
58	Zfp568	BALB/c	CpG 2	CpG 2.3	CpG 2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
58	Zfp568	BALB/c	CpG 3	CpG 2.3	CpG 2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
58	Zfp568	BALB/c	CpG 4	CpG 4.5	CpG 4.5	0.25	0.12	NA	0.05	0.1	0.06	0.18	0.02	0.46	0.7	0.84	0.98	NA	NA
58	Zfp568	BALB/c	CpG 5	CpG 4.5	CpG 4.5	0.25	0.12	NA	0.05	0.1	0.06	0.18	0.02	0.46	0.7	0.84	0.98	NA	NA
58	Zfp568	BALB/c	CpG 6	CpG 6.7	CpG 6.7														
58	Zfp568	BALB/c	CpG 7	CpG 6.7	CpG 6.7														
58	Zfp568	BALB/c	CpG 8	CpG 8	CpG 8														
58	Zfp568	BALB/c	CpG 9	CpG 9.10	CpG 9.10														
58	Zfp568	BALB/c	CpG 10	CpG 9.10	CpG 9.10														
58	Zfp568	BALB/c	CpG 11	CpG 11	CpG 11														
58	Zfp568	BALB/c	CpG 12	CpG 12	CpG 12														