

Table SI. Correlation of the matched gene expressions and methylations of 192 differentially methylated genes.

Gene	Correlation
PRR23C	-0.2522963
DRD1	-0.246173
NKX3-2	-0.1970473
EMP1	-0.1956263
STAT6	-0.1661959
HIST1H3B	-0.1591267
SP140L	-0.1549279
IGFBP1	-0.1535191
IFIT2	-0.15273
STMN2	-0.1406135
FOXL2	-0.1399089
NKX2-6	-0.1381597
RNF122	-0.1365215
SYK	-0.1361368
REC8	-0.1358272
ISL2	-0.1351598
TLR1	-0.1303261
MAP3K8	-0.1273309
KAZALD1	-0.1245606
GALR3	-0.1229305
ERBB2	-0.1223942
PTF1A	-0.1193989
FOXE3	-0.1185314
LHX8	-0.1181588
SET	-0.1168852
BOLL	-0.1166044
SLC6A7	-0.1149813
TACSTD2	-0.1124771
PALLD	-0.1074335
MED12L	-0.1062393
CASP1	-0.1059243
SPSB4	-0.104074
STAMBPL1	-0.1034746
COL5A1	-0.1023186
EIF3G	-0.1000562
HAGHL	-0.0991275
HSPA1A	-0.0991246
PAMR1	-0.0980499
HSP90AA1	-0.0974522
SSBP4	-0.0963955
SWAP70	-0.0958244
MYOD1	-0.0954598
CACNG8	-0.0951463
ZNF215	-0.09512
NOD2	-0.0908812
HMX3	-0.089919
COL4A2	-0.089582
YPEL3	-0.0888351
IFITM3	-0.0869848
SERPINE1	-0.0863418
PROX1	-0.0861943
NEUROG3	-0.0860592
FBN2	-0.0837949
CEND1	-0.0790925
KCNQ3	-0.0780794
SALL1	-0.073717
GBX1	-0.0732043
CPEB1	-0.0731482

Table SI. Continued.

Gene	Correlation
SLITRK5	-0.0721374
BHLHE23	-0.0712634
AES	-0.0709788
ZNF429	-0.0709483
CEBPA	-0.0700203
TRH	-0.0698487
HIST1H4E	-0.0695383
SFTA3	-0.0659098
COL11A1	-0.0647924
TBX18	-0.064588
POU4F3	-0.0640007
SMAD6	-0.0606471
STEAP1	-0.0595442
CHSY3	-0.0592162
LRRC4	-0.0590463
PLD3	-0.0587258
TMEM215	-0.0584142
SOX1	-0.0583847
CDH7	-0.0579463
FOXD3	-0.0564416
ARF5	-0.0540274
WDR72	-0.0540087
SOX17	-0.0536554
DRD4	-0.0526899
GRIA1	-0.0508037
ZNF609	-0.0506307
FHL3	-0.0506058
KCNV1	-0.0503591
SNCAIP	-0.0501788
CCRL2	-0.0500004
FAIM2	-0.0497013
TMEM26	-0.0490169
SLC12A2	-0.0487346
IL1RL2	-0.0486836
MOV10L1	-0.0483904
SALL3	-0.0482288
PROCR	-0.047557
HOXC4	-0.0469132
TMEM52	-0.0461659
TPPP	-0.0451947
ZIC4	-0.0447152
APCDD1L	-0.0441431
GNG12	-0.0437075
TMEFF1	-0.0412731
TRAF1	-0.0403154
HIST1H2AE	-0.0399011
PINX1	-0.0397676
KCNA1	-0.0392764
HELT	-0.0391715
GRIK1	-0.039077
RIMKLB	-0.0377741
GALM	-0.0372994
PTPRO	-0.0372165
GNAL	-0.0368888
FOXC2	-0.0357146
TBX6	-0.0352043
GIPC3	-0.0347463
EPO	-0.0338322

Table SI. Continued.

Gene	Correlation
SPAG6	-0.0331906
PLA2G7	-0.0329245
VSX1	-0.0324941
HRASLS	-0.032174
NQO2	-0.0319771
TMEM229A	-0.0318451
EMP3	-0.0314037
SFRP2	-0.0302671
ANP32B	-0.0301325
FOXA2	-0.0300645
IGFBP2	-0.0296542
TRIM67	-0.029495
CEP55	-0.029173
NPY	-0.0289637
TWIST2	-0.0287574
WNT2	-0.0283032
NKX2-3	-0.0265902
GALR1	-0.0264589
CARTPT	-0.0245127
NPFFR2	-0.0244912
ARHGAP22	-0.0243327
KLRG2	-0.0239735
ARHGAP20	-0.0236916
NXPH1	-0.0234932
PITX2	-0.0232268
PCDH8	-0.0229747
C1QL2	-0.0226309
ZNF30	-0.0222654
SLC20A1	-0.0221781
IGLON5	-0.0211837
ZFP36L2	-0.0210173
HIST1H2BI	-0.020594
TWIST1	-0.0184949
ANO3	-0.017191
UBE2L6	-0.01541
CDC42EP2	-0.0151015
CPLX2	-0.0149369
CXCL14	-0.0147745
IRX4	-0.0146383
NPTX1	-0.0144262
OLFM1	-0.0144195
SUSD4	-0.0142126
FOXI2	-0.0134403
FBLL1	-0.0133425
FOXF2	-0.0130895
PTPRU	-0.0127816
PIK3AP1	-0.0123082
ABCA10	-0.0116913
HIST1H3D	-0.0116414
ACCS	-0.0111877
PCSK1	-0.0109359
FOXL1	-0.0107122
RIPK3	-0.010063
CCDC106	-0.0098234
ADRB3	-0.0094792
RXFP3	-0.0077868
SERINC5	-0.0065846
B3GAT2	-0.0064432

Table SI. Continued.

Gene	Correlation
IRF4	-0.0062805
FAM19A5	-0.006132
LHX2	-0.006001
SPATA12	-0.0059806
RNF207	-0.0054426
CACNG7	-0.0051834
TNIP3	-0.0047964
SLC12A8	-0.0047434
GSX1	-0.0045764
GUCY1A2	-0.0043036
GABRB2	-0.0039771
SRC	-0.0036463
LGALS1	-0.0028349
POU3F1	-0.0026165
HBM	-0.0018945
ADCYAP1R1	-0.0013789
SNX21	-0.0013384
NR2F2	-0.0009395
