

**Table S1.** Functional enrichment analysis of methylated genes in promoter and gene-body regions.

KEGG Pathway	DEGs	DEGs	Genes	All genes				Pathway ID
	annotation in term	with KEGG	annotation in term	with KEGG	Pvalue	FDR	Enrichment factor	
		annotation		annotation				
<b>Promoter</b>								
Apelin signaling pathway	12	493	186	17394	0.01281	0.860436	2.276255	ko04371
ECM-receptor interaction	9	493	137	17394	0.01995	0.860436	2.317792	ko04512
Vibrio cholerae infection	6	493	72	17394	0.02058	0.860436	2.940162	ko05110
Osteoclast differentiation	11	493	185	17394	0.02433	0.860436	2.097846	ko04380
Gastric acid secretion	8	493	120	17394	0.02546	0.860436	2.35213	ko04971
Chagas disease (American trypanosomiasis)	8	493	128	17394	0.03477	0.860436	2.205122	ko05142
Salivary secretion	9	493	149	17394	0.04303	0.860436	2.131124	ko04970
Amoebiasis	9	493	149	17394	0.04303	0.860436	2.131124	ko05146
<b>Gene</b>								
Ribosome	15	2161	297	17394	0.000166	2.58E-02	0.406518	ko03010
Regulation of actin cytoskeleton	59	2161	304	17394	0.002279	8.58E-02	1.562151	ko04810
Estrogen signaling pathway	32	2161	137	17394	0.002765	8.58E-02	1.88007	ko04915
Phosphatidylinositol signaling system	35	2161	158	17394	0.003577	8.58E-02	1.783018	ko04070
Vascular smooth muscle contraction	38	2161	179	17394	0.004323	8.62E-02	1.708737	ko04270
Oxytocin signaling pathway	43	2161	211	17394	0.004541	8.62E-02	1.640328	ko04921
Steroid hormone biosynthesis	7	2161	151	17394	0.004792	8.62E-02	0.373135	ko00140
EGFR tyrosine kinase inhibitor resistance	24	2161	98	17394	0.005223	8.62E-02	1.971196	ko01521
Rap1 signaling pathway	64	2161	350	17394	0.005431	8.62E-02	1.471827	ko04015