Table 2- DNA Methylation of probes located near transcription start sites of selected genes associated in endothelial function and corresponding gene expression levels. * denotes number of probes located near promoter regions of each gene where highly differential DNA methylation patterns were detected between two cell types out of total numbers of probes associated with each gene. † denotes probes where strong DNA methylation differences and gene expression patterns were detected but not inverse relationship. It may indicate there exists other regulatory regions or gene expression is regulated by other epigenetic mechanism rather than DNA methylation.

Selected genes showing changes in both promoter methylation and gene expression

Gene Symbol	Description	Gene Expression LogFC (HPAEC - HPVEC)	Average β of HPAEC - HPVEC	Probes located in promoter region / Total number of probes*
NOS3	Nitrix Oxide Synthase	-1.233	0.314	6/28 (21%)
vWF	von Wildebrand Factor	-2.523	0.124	4/38 (11%)
MGP	Matrix Gla protein	-3.202	0.225	1/3 (33%)
GJA5	Connexin40	-3.434	0.122	7/15 (47%)
APOLD1†	apolipoprotein L domain containing 1 [Homo sapiens]	-0.061	0.684	7/32 (22%)
HIF3A†	Hypoxia Inducible Factor 3, alpha subunit	-0.599	-0.161	8/23 (35%)
EphB1†	Ephrine type-B receptor 1	1.050	0.284	2/36 (6%)
ANGPTL†	Angiopoietin-like 2	0.768	-0.178	2/6 (33%)
SELE†	E-Selectin	0.934	0.165	2/3 (67%)
FLT1 (VEGFR1) †	Vascular Endothelial Growth Factor Receptor 1	0.930	0.333	3/28 (11%)
COL6A3	Collagen, type VI, alpha 3	4.117	-0.128	9/53 (17%)
HSD11B1	Hydroxysteroid (11-beta) Dehydrogenase 1	1.092	-0.177	8/9 (89%)
VEGFC	Vascular Endothelial Growth Factor C	0.662	-0.101	5/13 (38%)
HGF	Hepatocyte Growth Factor (hepapoietin A; scatter factor)	3.973	-0.092	7/10 (70%)
ANGPT1	Angiopoietin 1	1.172	-0.210	2/16 (13%)

Genes showing expression changes but no changes in DNA methylation

Gene Symbol	Description	Gene Expression LogFC (HPAEC - HPVEC)	Average β of HPAEC - HPVEC	Probes located in promoter region / Total number of probes*
ARG2	Arginine 2	0.445	<0.001	11/15 (73%)
DLL1	Delta like protein 1 precursor	0.077	0.005	12/38 (32%)
JAG1	Jagged 1 precursor	0.605	<0.001	10/24 (42%)
JAG2	Jagged 2 precursor	0.369	<0.001	8/47 (17%)
KDR (VEGFR2)	Kinase Insert Domain Receptor	1.552	0.003	9/16 (56%)
HEY2	hairy/enhancer-of-split related with YRPW motif 2	1.506	<0.001	11/21 (52%)
NOTCH4	neurogenic locus notch homolog protein 4 preproprotein	0.429	0.024	3/160 (2%)
EphB2	Ephrine type-B receptor 2	0.262	0.007	5/46 (11%)
NRP1	Neuropilin 1	0.529	0.002	6/29 (21%)
EphB4	Ephrine type-B receptor 4	0.732	<0.001	7/29 (24%)
ICAM-2	Intercelluar adhesion molecule-2	0.808	0.029	11/15 (73%)