Supplemental Information

Table S1: Endothelial cell function-associated transcripts that met the recommended cut-off threshold values ($C_t \leq 30$) in either the control or NOSTRIN-over expressed samples in the array.

Sl. No	Gene Symbol	Control Ct (Average)	NOSTRIN Ct (Average)	Fold Change	Gene Description
1	Ace	26.38	28.55	-5.4514	Angiotensin I converting enzyme (peptidyl-dipeptidase A) 1
2	Adam17	21.44	22.77	-3.0424	A disintegrin and metallopeptidase domain 17
3	Anxa5	18.47	19.59	-2.6115	Annexin A5
4	Apoe	26.72	27.14	-1.6124	Apolipoprotein E
5	Bax	20.47	20.8	-1.5209	Bcl2-associated X protein
6	Bcl2	23.27	24.32	-2.4977	B-cell leukemia/lymphoma 2
7	Bcl2l1	22.66	21.62	1.708	Bcl2-like 1
8	Casp3	23.04	24.82	-4.1379	Caspase 3
9	Cav1	17.56	18.53	-2.3664	Caveolin 1, caveolae protein
10	Ccl2	17.76	19.2	-3.2802	Chemokine (C-C motif) ligand 2
11	Ccl5	17.93	20.77	-8.6405	Chemokine (C-C motif) ligand 5
12	Cdh5	19.26	19.72	-1.6596	Cadherin 5
13	Cflar	23.4	23.39	-1.2007	CASP8 and FADD-like apoptosis regulator
14	Col18a1	28.28	31.25	-9.4839	Collagen, type XVIII, alpha 1
15	Cradd	27.46	28.26	-2.0965	CASP2 and RIPK1 containing adaptor with death domain
16	Cx3cl1	28.89	29.39	-1.7088	Chemokine (C-X3-C motif) ligand 1
17	Cxcl1	26.14	23.49	5.2081	Chemokine (C-X-C motif) ligand 1
18	Cxcl2	27.55	24.73	5.8402	Chemokine (C-X-C motif) ligand 2
19	Edn1	26.86	25.31	2.4132	Endothelin 1
20	Eng	21.99	22.13	-1.3299	Endoglin
21	F2r	21.41	22.12	-1.9771	Coagulation factor II (thrombin) receptor
22	F2rl1	23.25	23.95	-1.9538	Coagulation factor II (thrombin) receptor-like 1
23	F3	27.98	27.84	-1.0955	Coagulation factor III
24	Fas	26.12	26.38	-1.4383	Fas (TNF receptor superfamily member 6)
25	Fasl	29.72	29.29	1.1189	Fas ligand (TNF superfamily, member 6)
26	Fgf1	27.82	29.02	-2.7709	Fibroblast growth factor 1
27	Flt1	24.16	25.07	-2.2661	FMS-like tyrosine kinase 1
28	Fn1	21.21	22.75	-3.5179	Fibronectin 1
29	Hif1a	20.39	21.09	-1.9512	Hypoxia inducible factor 1, alpha subunit
30	Icam1	25.6	25.79	-1.3737	Intercellular adhesion molecule 1
31	Il6	24.03	26.68	-7.5833	Interleukin 6
32	Il7	27.06	27.25	-1.3772	Interleukin 7
33	Itga5	20.73	22.25	-3.4566	Integrin alpha 5 (fibronectin receptor alpha)
34	Itgav	21.7	21.72	-1.2217	Integrin alpha V
35	Itgβ1	18.28	18.86	-1.8076	Integrin beta 1 (fibronectin receptor beta)

36	Itgβ3	22.37	24.36	-4.7976	Integrin beta 3
37	Kdr	20.93	22.45	-3.4719	Kinase insert domain protein receptor
38	Kit	22.7	27	-23.700	Kit oncogene
39	Mmp1a	29.26	31.15	-4.4491	Matrix metallopeptidase 1a (interstitial collagenase)
40	Mmp2	26.1	27.18	-2.5489	Matrix metallopeptidase 2
41	Mmp9	29.92	31.53	-3.6915	Matrix metallopeptidase 9
42	Nos3	22.7	23.89	-2.7528	Nitric oxide synthase 3, endothelial cell
43	Nppb	25	25.07	-1.2652	Natriuretic peptide type B
44	Npr1	27.82	29.39	-3.5733	Natriuretic peptide receptor 1
45	Ocln	29.45	31.71	-5.7912	Occludin
46	Pdgfra	28.74	29.62	-2.22	Platelet derived growth factor receptor, alpha polypeptide
47	Pecam1	17.04	18.8	-4.0806	Platelet/endothelial cell adhesion molecule 1
48	Pf4	25.33	25.99	-1.9043	Platelet factor 4
49	Pgf	21.83	26.24	-25.530	Placental growth factor
50	Plat	21.75	22.41	-1.911	Plasminogen activator, tissue
51	Plau	20.84	23.93	-10.282	Plasminogen activator, urokinase
52	Procr	16.7	16.99	-1.4813	Protein C receptor, endothelial
53	Ptgis	25.85	25.83	-1.1898	Prostaglandin I2 (prostacyclin) synthase
54	Ptgs2	22.69	22.23	1.1406	Prostaglandin-endoperoxide synthase 2
55	Sele	23.81	24.88	-2.5229	Selectin, endothelial cell
56	Selp	20.56	21.41	-2.1812	Selectin, platelet
57	Selplg	29.19	30.45	-2.8827	Selectin, platelet (p-selectin) ligand
58	Serpine1	23.11	23.46	-1.5399	Serine (or cysteine) peptidase inhibitor, clade E, member 1
59	Sod1	17.96	18.82	-2.1893	Superoxide dismutase 1, soluble
60	Tek	22.39	24.98	-7.2576	Endothelial-specific receptor tyrosine kinase
61	Tfpi	22.9	23.9	-2.4146	Tissue factor pathway inhibitor
62	Tgfb1	21.78	21.93	-1.3377	Transforming growth factor, beta 1
63	Thbd	23.43	23.32	-1.1214	Thrombomodulin
64	Thbs1	19.35	20.34	-2.3842	Thrombospondin 1
65	Timp1	20.71	21.24	-1.7388	Tissue inhibitor of metalloproteinase 1
66	Tnfsf10	28.44	29.08	-1.8851	Tumor necrosis factor (ligand) superfamily, member 10
67	Vcam1	22.75	22.68	-1.1491	Vascular cell adhesion molecule 1
68	Vegfα	24.9	25.04	-1.3372	Vascular endothelial growth factor A

Table S2: Specific primer sequences used for qRT-PCR analysis.

Sl. No.	Primer name		Sequence (5' to 3')	Gene Bank Accession no.
1	Ace	Fwd	CCCAGATCCCAAACCTAGAGACT	NM_009598
		Rev	GGATCTTGCTGCCCTCTATGG	
2	Adam-17	Fwd	AACACGTCGTGGGATAATGCA	NM_009615
		Rev	AAGCATCCTTCTCTTCGTTTGG	
3	Anxa5	Fwd	TGACATCCCGAAGCAATGC	NM_009673
		Rev	CGTAGAGTCGTGAGGGCTTCA	
4	Bcl2	Fwd	CGCCCTGTGGATGACTGAGT	NM_009741
		Rev	GGCTGAGCAGGGTCTTCAGA	
5	Casp3	Fwd	GAGCTGGACTGTGGCATTGA	NM_009810
		Rev	AACCACGACCCGTCCTTTG	
6	Cav1	Fwd	GACCCCAAGCATCTCAACGA	NM_007616
		Rev	AGACAACAAGCGGTAAAACCAATAT	
7	Ccl2	Fwd	AAAACCTGGATCGGAACCAAA	NM_011333
		Rev	TGCTTGAGGTGGTTGTGGAA	
8	Ccl5	Fwd	GACACCACTCCCTGCTGCTT	NM_013653
		Rev	CTTCTCTGGGTTGGCACACA	
9	Col18a1	Fwd	AAGCTGACCTTCATTGACATGGA	NM_009929
		Rev	TAGGAACCATTGATCCCAAAGC	
10	Edn1	Fwd	GCCCAAAGTACCATGCAGAAA	NM_010104
		Rev	GATGCCTTGATGCTATTGCTGAT	
11	Fgf1	Fwd	ACAAAAAGCCCAAACTGCTCTACT	NM_010197
		Rev	TTATATACACTTCGCCCGCACTT	
12	Flt-1	Fwd	ATCGGCCATCATCTGAATGTG	NM_010228
		Rev	TGCGTCCTTGTTGAGACAGAA	
13	Fn1	Fwd	AAGGTTCGGGAAGAGGTTGTG	NM_010233
		Rev	GAGCTTAAAGCCAGCGTCAGA	
14	IL-6	Fwd	GTGCAATGGCAATTCTGATTGT	NM_031168
		Rev	TCCAGAAGACCAGAGGAAATTTTC	

15	Itga5	Fwd	GCCGTACCCCAGACTTCTTTG	NM_010577
		Rev	GAGAGATGCGCTGGCAGATAT	
16	Itgβ3	Fwd	GCGTGTCCCGTAATCGAGAT	NM_016780
		Rev	TTCCATCCAGGGCAATATGG	
17	Kdr	Fwd	GTGAATGTCCCACCCCAGAT	NM_010612
		Rev	CAGGCTTCTTCTAGCTGCCAGTA	
18	Kit	Fwd	TTTACATAGACCCGACGCAACTT	NM_021099
		Rev	TCATGGCAGCATCCGACTTA	
19	Mmp1a	Fwd	TGTTGCTTCTCTGGGCTGCTA	NM_032006
		Rev	CATCTCCTTGCCATTCACGTT	
20	Mmp2	Fwd	TCTGATGGCCCCGATCTACA	NM_008610
		Rev	AGTGACAGGTCCCAGTGTTGGT	
21	Mmp9	Fwd	CCAAAGACCTGAAAACCTCCAA	NM_013599
		Rev	GCAGGGAGAGCTGCTTCTGA	
22	Nos-3	Fwd	TCTGCGGCGATGTCACTATG	NM_008713
		Rev	TCCGAAAATGTCCTCGTGGTA	
23	Npr1	Fwd	TGCTCTATGTCCAGGCAGTGA	NM_008727
		Rev	TCAGTGTCCCGATCTCCATTT	
24	PECAM 1	Fwd	CTCACGCTGGTGCTCTATGC	NM_008816
		Rev	TTTCGAGGTGGTGCTGATGTC	
25	PGF	Fwd	TGGCTGCTGTGGTGATGAAG	NM_008827
		Rev	CTGCATTCACAGAGCACATCCT	
26	Plau	Fwd	ACTGCTTCATTCAACTCCCAAAG	NM_008873
		Rev	TATGGTAGGCCAGGCTGTCTTC	
27	Sele	Fwd	CTTGCATGGCTCAGCTCAAC	NM_011345
		Rev	TGTGCCGAAAACTGCTGTTC	
28	Selp	Fwd	TGGAAAAGTCAACATCCCTCAA	NM_011347
		Rev	TCCCAGAAGCCAAACATTGC	
29	Sod1	Fwd	GCGGTGAACCAGTTGTGTTG	NM_011434
		Rev	CGGGCCACCATGTTTCTTAG	
30	Tek	Fwd	TGGAAGAGAGAAAAGGCCAGTAA	NM_013690
		Rev	CTCCCCTGTCCACGGTCATA	

31	Tfpi	Fwd	TCTGCCGAGGTTACATGAAGAG	NM_011576
		Rev	GGGAGTGGACTGGATTCTCACA	
32	Thbs1	Fwd	TGGAACCACCCCAGAAGACA	NM_011580
		Rev	GCTTGGAGGTCCTTTGTTTTGT	