

**Supplemental Material**

**Endothelial PPAR $\gamma$  Protects Against Vascular Thrombosis**

**by Downregulating P-Selectin Expression**

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**Supplemental Table I. Expression of NF- $\kappa$ B target genes in endothelial cells from E-V290M and non-Tg mice.**

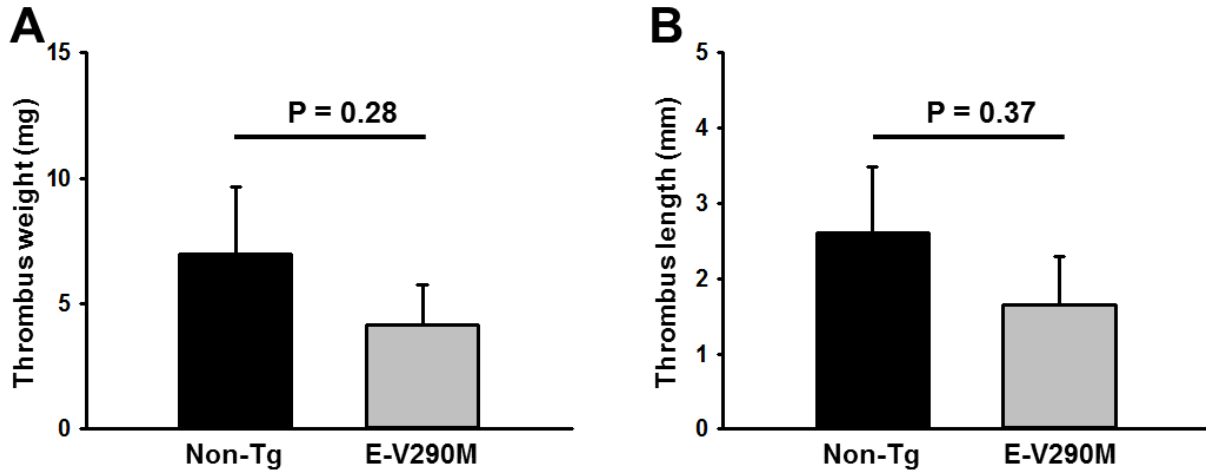
Gene*	Probe	Fold Change	P-Value	Description
<i>Selp</i>	1420558_at	6.90	0.0061	selectin, platelet
<i>Cxcl5</i>	1419728_at	6.61	0.0120	chemokine (C-X-C motif) ligand 5
<i>Il1rn</i>	1425663_at	5.04	0.0755	interleukin 1 receptor antagonist
<i>Il6</i>	1450297_at	4.23	0.0691	interleukin 6
<i>Tfpi2</i>	1418547_at	3.80	0.0201	tissue factor pathway inhibitor 2
<i>Cd80</i>	1427717_at	3.53	0.0376	CD80 antigen
<i>Ptgs2</i>	1417262_at	2.96	0.1132	prostaglandin-endoperoxide synthase 2
<i>Ier3</i>	1419647_a_at	2.43	0.0111	immediate early response 3
<i>Ccl2</i>	1420380_at	2.37	0.0378	chemokine (C-C motif) ligand 2
<i>Tnc</i>	1416342_at	2.19	0.0528	tenascin C
<i>Cd44</i>	1434376_at	2.07	0.0446	CD44 antigen
<i>Ptx3</i>	1418666_at	1.86	0.0864	pentraxin related gene
<i>Il11</i>	1449982_at	1.82	0.0225	interleukin 11
<i>Ccl5</i>	1418126_at	1.77	0.0265	chemokine (C-C motif) ligand 5
<i>Tgm2</i>	1433428_x_at	1.76	0.0019	transglutaminase 2, C polypeptide
<i>Bcl2l1</i>	1420887_a_at	1.64	0.0161	Bcl2-like 1
<i>Ccnd1</i>	1448698_at	1.61	0.0846	cyclin D1
<i>Bdkrb1</i>	1450586_at	1.55	0.0299	bradykinin receptor, beta 1
<i>Tnfrsf9</i>	1460469_at	1.55	0.0507	tumor necrosis factor receptor superfamily, member 9
<i>Cd83</i>	1416111_at	1.53	0.0186	CD83 antigen
<i>Csf1</i>	1448914_a_at	1.53	0.0208	colony stimulating factor 1 (macrophage)
<i>Bcl3</i>	1418133_at	1.49	0.0285	B-cell leukemia/lymphoma 3

<i>Nfkb2</i>	1425902_a_at	1.48	0.0767	nuclear factor NF-kappa-B p100 subunit
<i>Csf3</i>	1419427_at	1.44	0.1416	colony stimulating factor 3 (granulocyte)
<i>Csf2</i>	1427429_at	1.39	0.1081	colony stimulating factor 2 (granulocyte-macrophage)
<i>Crp</i>	1421946_at	1.38	0.0383	C-reactive protein, pentraxin-related
<i>Ptafr</i>	1427871_at	1.28	0.0314	platelet-activating factor receptor
<i>Pdgfb</i>	1450413_at	1.27	0.0188	platelet derived growth factor, B polypeptide
<i>Sele</i>	1421712_at	1.25	0.1743	selectin, endothelial cell
<i>Tap1</i>	1448177_at	1.25	0.0722	transporter 1, ATP-binding cassette, sub-family B (MDR/TAP)
<i>Il1b</i>	1449399_a_at	1.24	0.0386	interleukin 1 beta
<i>Cd74</i>	1425519_a_at	1.23	0.0380	CD74 antigen
<i>Hmox1</i>	1448239_at	1.23	0.2046	heme oxygenase (decycling) 1
<i>Icam1</i>	1424067_at	1.22	0.1967	intercellular adhesion molecule
<i>Nr4a2</i>	1455034_at	1.22	0.2101	Nuclear receptor subfamily 4, group A, member 2
<i>Il9</i>	1450565_at	1.21	0.1117	interleukin 9
<i>Ifnb1</i>	1422305_at	1.19	0.2352	interferon beta 1, fibroblast
<i>Il1a</i>	1421473_at	1.19	0.1828	interleukin 1 alpha
<i>Blr1</i>	1422003_at	1.17	0.2265	Burkitt lymphoma receptor 1
<i>Mmp9</i>	1448291_at	1.17	0.1559	matrix metalloproteinase 9
<i>Alox12b</i>	1418266_at	1.15	0.2218	arachidonate 12-lipoxygenase, 12R type
<i>Ccr5</i>	1422260_x_at	1.15	0.1298	chemokine (C-C motif) receptor 5
<i>Ltb</i>	1419135_at	1.15	0.2059	lymphotoxin B
<i>Slc2a5</i>	1416639_at	1.13	0.1748	glucose transporter type 5
<i>Cd3g</i>	1419178_at	1.11	0.3848	CD3 antigen, gamma polypeptide
<i>Il2ra</i>	1420692_at	1.11	0.3149	interleukin 2 receptor, alpha chain
<i>Nfkb1</i>	1442949_at	1.11	0.2393	nuclear factor NF-kappa-B p105 subunit

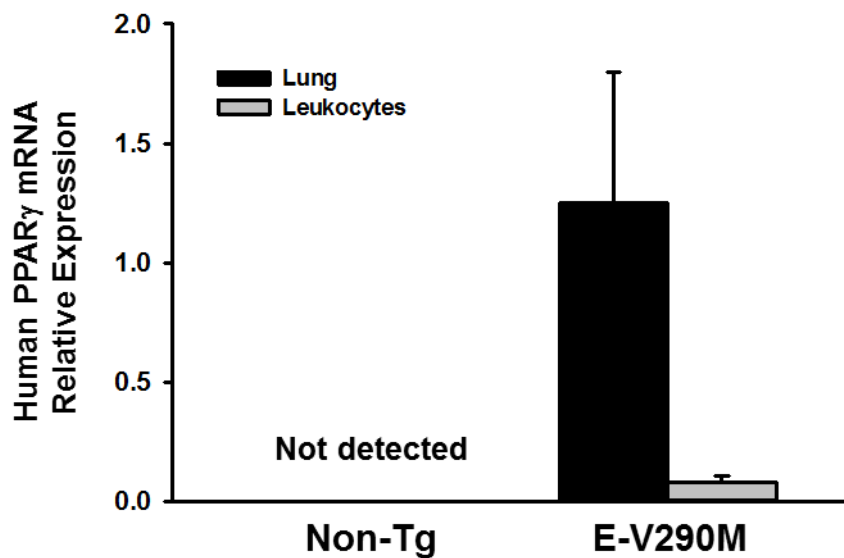
<i>Gstp1</i>	1449575_a_at	1.10	0.2363	glutathione S-transferase, pi 1
<i>Nqo1</i>	1423627_at	1.10	0.4868	NAD(P)H dehydrogenase, quinone 1
<i>Lta</i>	1420353_at	1.09	0.5470	lymphotoxin A
<i>Oprm1</i>	1441791_at	1.09	0.3484	Opioid receptor, mu 1
<i>Tacr1</i>	1422282_at	1.08	0.4854	tachykinin receptor 1
<i>Vim</i>	1450641_at	1.08	0.4246	vimentin
<i>Ccr7</i>	1423466_at	1.07	0.5211	chemokine (C-C motif) receptor 7
<i>Tnf</i>	1419607_at	1.06	0.5392	tumor necrosis factor
<i>Il13</i>	1420802_at	1.05	0.6351	interleukin 13
<i>S100a6</i>	1421375_a_at	1.05	0.5286	S100 calcium binding protein A6 (calcyclin)
<i>Scnn1a</i>	1425088_at	1.03	0.7692	sodium channel, nonvoltage-gated, type I, alpha
<i>Cd69</i>	1428735_at	1.02	0.8946	CD69 antigen
<i>Cr2</i>	1425289_a_at	1.01	0.9379	complement receptor 2
<i>Irf7</i>	1417244_a_at	1.00	0.9880	interferon regulatory factor 7
<i>Relb</i>	1417856_at	0.99	0.9599	avian reticuloendotheliosis viral (v-rel) oncogene related B
<i>Cd48</i>	1427301_at	0.98	0.8533	CD48 antigen
<i>F3</i>	1417408_at	0.95	0.6423	coagulation factor III
<i>Plcd1</i>	1416675_s_at	0.93	0.6940	phospholipase C, delta 1
<i>Ager</i>	1420428_at	0.91	0.4683	advanced glycosylation end product- specific receptor
<i>Elf3</i>	1416916_at	0.91	0.3489	E74-like factor 3
<i>Vcam1</i>	1451314_a_at	0.88	0.3016	vascular cell adhesion molecule 1
<i>Myc</i>	1424942_a_at	0.85	0.3375	myelocytomatosis oncogene
<i>Defb4</i>	1419600_at	0.83	0.5444	defensin beta 4
<i>Plau</i>	1422139_at	0.82	0.6317	plasminogen activator, urokinase
<i>Il15</i>	1418219_at	0.80	0.1906	interleukin 15

<i>Irf1</i>	1448436_a_at	0.79	0.2772	interferon regulatory factor 1
<i>Tpmt</i>	1438087_at	0.79	0.2607	thiopurine methyltransferase
<i>Sod2</i>	1442994_at	0.76	0.0908	Superoxide dismutase 2, mitochondrial
<i>Tnfaip3</i>	1433699_at	0.75	0.1912	tumor necrosis factor, alpha-induced protein 3
<i>Ccl11</i>	1417789_at	0.72	0.2840	small chemokine (C-C motif) ligand 11
<i>Il15ra</i>	1448681_at	0.69	0.0622	interleukin 15 receptor, alpha chain
<i>Nfkb1a</i>	1448306_at	0.65	0.0402	I-kappa-B-alpha
<i>Irf2</i>	1447527_at	0.61	0.0234	Interferon regulatory factor 2
<i>Stat5a</i>	1420178_at	0.53	0.0138	Transcribed locus
<i>Bcl2</i>	1440770_at	0.50	0.0008	B-cell leukemia/lymphoma 2
<i>Apoc3</i>	1418278_at	0.38	0.2090	apolipoprotein C-III
<i>Irf4</i>	1421173_at	0.30	0.0162	interferon regulatory factor 4

\*Gene: Official gene symbol from NCBI; Probe: probe set from Affymetrix MOE430 array; Change: fold change relative to non-transgenic littermates. For genes with multiple probe sets, the probe set with the lowest p-value is presented. Data are from an existing microarray dataset (available from NCBI-GEO at accession GSE11870).



**Supplemental Figure I. Inferior vena cava (IVC) thrombosis.** Venous thrombosis was induced in male non-transgenic (non-Tg) (N = 7) or E-V290M mice (N = 12) mice by IVC ligation, and the weight (A) and length (B) of thrombi was measured after 48 hours. Values are mean  $\pm$  SE. The P-values were determined using the rank sum test.



**Supplemental Figure II. Expression of human PPAR $\gamma$  transgene mRNA.** Levels of human PPAR $\gamma$  mRNA in lung and peripheral blood leukocytes from non-Tg or E-V290M mice were measured by qPCR (N = 4).

**Supplemental Movie 1. Representative video of leukocyte rolling in non-Tg mice.**

Leukocyte rolling on an unstimulated mesenteric vein of a male non-Tg mouse was visualized in real time using phase contrast video microscopy.

**Supplemental Movie 2. Representative video of leukocyte rolling in E-V290M mice.**

Leukocyte rolling on an unstimulated mesenteric vein of a male E-V290M mouse was visualized in real time using phase contrast video microscopy.

**Supplemental Movie 3. Representative video of leukocyte rolling in E-V290M mice after administration of anti-P-selectin antibody.** Leukocyte rolling on an unstimulated mesenteric vein of a male E-V290M mouse was visualized in real time using phase contrast video microscopy after pre-treatment with a P-selectin blocking antibody.