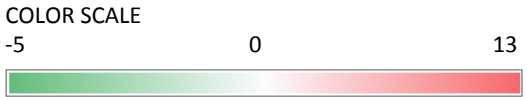
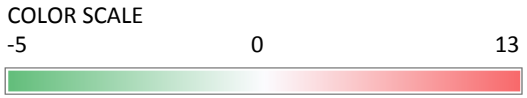
V-IPN/Endothelial Cell-Monocyte Interaction in HCAECs

	I 3R4F 0.06	I 3R4F 0.225	I THS2.2 0.225	I THS2.2 1.125
Cell Surface Expression of CCR2	-2.13	-2.98	-4.63	-2.69
SIRPA	-0.2	-0.22	-0.51	-0.13
CCR2	-0.12	-0.3	-1.4	-0.27
SELE	0.16	0.08	1.65	0.16
STAT5A	0.16	0.21	0.56	0.12
VCAM1	0.04	0.07	0.36	0.1
Low Density Lipoprotein	0.37	0.15	0.01	0.15
catof(CCR2)	0.19	0.2	0.01	0.18
Cholesterol	0	-0.03	-0.4	-0.01
chemotaxis	0.02	0.03	0	0.02
taof(ETS1)	0.99	1.08	0.21	0.86
SELPLG	0.58	0.54	0.64	0.58
taof(PPARA)	0.88	0.94	0.71	0.83
gtpof(RHOA)	0.66	0.81	0.75	0.76
ETS1	1.87	1.79	0.11	1.51
Cell Surface Expression of ITGAM	2.31	1.41	0.62	1.59
inflammatory response	1.38	1.78	1.28	1.39
MIF	1.6	1.96	1.3	1.38
kaof(PIK3CA)	1.24	1.41	1.08	1.32
IL1A	1.37	1.08	1.26	1.24
ITGAL:ITGB2	1.55	1.49	1.85	1.42
kaof(JAK2)	1.5	1.17	1.35	1.26
ITGB2:ITGAL:ICAM1	1.41	1.36	1.52	1.32
catof(CX3CL1)	1.22	1.29	1.39	1.28
ITGAM	12.76	8.86	5.36	10.22
monocyte adherence	6.63	6.47	6.19	6.44
ICAM1	6.37	6.35	4.3	6.73
oxidized 1-palmitoyl-2-arachidonyl-sn-3-glycero-phosphorylcholine	3.32	6.97	10.52	5.3
IL8	4.77	5.19	7.62	4.99
catof(LTB4R)	3.5	2.48	1.62	2.97
catof(ITGAM)	3.19	2.42	1.67	2.68
Leukotriene B4	3.42	2.78	2.41	3.35



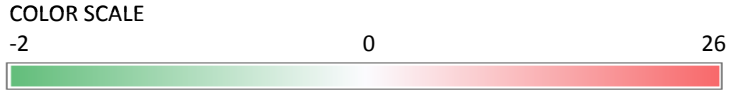
	I 3R4F 0.06	I 3R4F 0.225	I THS2.2 0.225	I THS2.2 1.125
ICAM1:ITGAM:ITGB2	2.97	2.69	2.16	2.82
catof(CX3CR1)	2.38	2.43	2.04	2.6
Leukotriene	2.35	2.53	2.76	2.99
CX3CL1	2.38	2.52	2.37	2.8
catof(IL8RB)	2.28	2.59	1.95	2.03
taof(STAT5A)	1.85	1.82	2.35	1.54
Oxidized Low Density Lipoprotein	2.32	2.65	5.11	2.75
Arachidonate	2.91	3.7	4.32	4.22
ITGB2	3.39	3.26	4.45	3.05
CCL2	3.4	4.58	3	3.97
ITGAM:ITGB2	4.43	3.55	2.9	3.8
Cell-derived microparticle	3.41	3.8	3.32	4.19



Cell Stress / Xenobiotic Metabolism Response in HCAECs

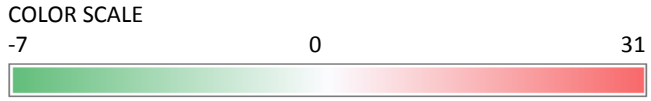
	I 3R4F 0.06	I 3R4F 0.225	I THS2.2 0.06	I THS2.2 0.225	I THS2.2 1.125	D 3R4F 0.06	D 3R4F 0.225	D THS2.2 0.06	D THS2.2 0.225	D THS2.2 1.125	FD 3R4F 0.06	FD THS2.2 0.06	FD THS2.2 0.225
taof(AHR)	13.66	10.89	9	8.09	11.15	11.13	10.37	6.8	9.03	9.48	10.55	5.35	8.91
Particulate Matter	10.17	8.01	3.04	6.4	11.67	8.78	8.72	7.67	10.02	8.7	7.66	4.45	7.29
oxof(CYP2E1)	7.8	12.8	19.04	16.61	10.94	14.36	13.69	19.7	18.11	14.52	11.59	25.62	17.63
Reactive Oxygen Species	7.36	11.77	14.02	14.15	10.51	12.38	12.92	16.14	13.54	13.32	12.32	19.93	15.13
Diesel exhaust particles	6.92	6.83	6.6	5.31	6.76	6.22	6.77	5.34	5.81	7.16	8.26	5.9	6.62
Polycyclic Aromatic Hydrocarbons	6.77	6.29	4.08	5.62	7.23	6.23	6.46	5.33	6.32	6.15	6.23	3.86	5.21
Soot	4.96	3.02	3.13	2.66	3.83	3.3	2.75	2.29	3.19	2.55	2.53	1.56	2.3
catof(CYP1B1)	4.7	5.06	4.68	4.84	5.05	4.78	5.01	4.81	4.58	4.93	5.31	4.54	4.74
Benzpyrene	4.37	4.25	5.07	3.8	4.3	4.29	4.51	2.9	4.18	4.19	4.98	2.94	3.61
AHR	3.42	2.32	0.24	0.48	1.73	2.34	1.85	0.86	1.35	1.11	2	0.18	1.57
catof(CYP1A1)	3.29	4.02	2.33	4.8	3.58	3.07	3.58	3.39	2.93	3.19	3.24	2.11	2.28
CYP1A1	2.96	2.78	2.87	3.47	2.5	2.29	2.16	2.53	2.02	2.34	2.32	1.54	2.04
catof(CYP1A2)	2.72	3.18	3.01	3.15	3.03	3.07	3.28	3.11	3.03	3.41	3.43	3.56	3.3
CYP1B1	2.33	2.24	2.12	2.17	2.2	2.03	1.96	1.84	1.72	1.81	2.12	1.3	1.73
2,3,7,8-Tetrachlorodibenzodioxin	2.25	2.28	1.92	2.36	2.2	1.86	1.99	2.06	1.52	1.76	2.11	1.43	1.57
taof(NFE2L2)	2.13	1.79	2.37	1.17	1.73	1.77	1.9	1.09	1.83	1.99	2.16	1.11	1.88
taof(NR1I3)	2.02	1.52	2.12	2.55	1.31	1	0.68	2.21	1.05	1.13	0.55	0.47	0.95
NQO1	1.75	1.07	1.14	0.62	1.14	1.02	0.97	0.35	0.94	0.89	1.09	0.18	0.62
CYP1A2	1.58	1.56	1.31	1.39	1.5	1.59	1.65	1.46	1.49	1.77	1.83	1.36	1.67
NFE2L2	1.36	1.75	2.16	1.32	1.67	1.79	2.04	1.42	1.94	1.93	2.05	1.87	2.29
ALDH3A1	1.34	0.74	0.75	0.39	0.75	0.66	0.56	0.22	0.66	0.56	0.59	0.08	0.38
Indirubin	1.15	0.78	0.57	0.4	0.82	0.86	0.7	0.05	0.15	0.45	0.85	0.06	0.3
8-Methyl-IQX	0.74	0.64	1.77	1.13	0.55	0.76	0.66	0.27	0.43	0.83	0.51	0.97	0.95
taof(ESR1)	0.73	0.82	1.28	1.26	0.7	0.66	0.42	0.64	0.48	0.37	0.59	0.15	0.44
NR1I3	0.66	0.36	0.39	0.71	0.41	0.23	0.13	1.55	0.42	0.34	0.03	0.02	0.14
taof(NR1I2)	0.57	0.6	0.42	0.62	0.53	0.66	0.77	0.94	0.73	1.15	1.04	0.76	1.05
GSTP1	0.4	0.06	0.06	0	0.08	0.03	0.01	-0.03	0.05	0.01	0.01	-0.17	-0.01
TP53	0.35	0.62	1.64	0.75	0.43	0.52	0.61	0.3	0.56	0.66	0.91	0.56	0.6

	I 3R4F 0.06	I 3R4F 0.225	I THS2.2 0.06	I THS2.2 0.225	I THS2.2 1.125	D 3R4F 0.06	D 3R4F 0.225	D THS2.2 0.06	D THS2.2 0.225	D THS2.2 1.125	FD 3R4F 0.06	FD THS2.2 0.06	FD THS2.2 0.225
catof(ALDH3A1)	0.34	0.01	0	-0.03	0.01	0	-0.03	-0.19	0	-0.03	-0.05	-0.59	-0.17
ESR1	0.26	0.35	1.08	0.89	0.36	0.32	0.13	0.2	0.22	0.2	0.09	0.04	0.11
catof(GSTP1)	0.18	-0.02	-0.03	-0.16	-0.01	-0.09	-0.2	-0.51	-0.03	-0.19	-0.24	-1.18	-0.52
Nicotine	0.11	0.09	0.23	0.2	0.08	0.09	0.08	0.05	0.07	0.1	0.12	0.16	0.08
NR1I2	0.07	0.08	0.04	0.09	0.06	0.09	0.15	0.28	0.19	0.52	0.23	0.24	0.43
BRCA1	0.03	0.01	0.02	0	0.01	0.02	0.03	0.01	0.03	0.03	0.03	0.03	0.04
AHRR	-0.01	-0.03	-0.12	-0.05	-0.01	-0.01	-0.01	-0.06	-0.01	0	-0.11	0	-0.08
4-Hydroxy-2-nonenal	-0.01	0.49	0.61	1.09	0.42	0.88	1.35	2.23	0.52	1.3	1.53	4.21	2.41
catof(NQO1)	-0.09	-0.35	-0.44	-0.57	-0.28	-0.39	-0.42	-0.79	-0.46	-0.46	-0.37	-1.12	-0.62
Curcumin	-0.46	-0.54	-0.29	-0.68	-0.52	-0.44	-0.5	-0.39	-0.41	-0.46	-0.38	-0.41	-0.32



Cell Stress / Endoplasmic Reticulum Stress in HCAECs

	I 3R4F 0.06	I THS2.2 1.125	FD 3R4F 0.225	FD THS2.2 2.25
kaof(MAPK8)	5.49	4.04	16.73	16.22
MAPK8	4.87	3.1	30.91	28.26
DDIT3	1.88	2.96	0.62	0.79
Hyperoxia	2.18	2.64	1.5	0.94
taof(ATF6)	2.37	3.73	0.23	0.8
response to unfolded protein	2.05	2.63	0.03	0.09
WFS1	-0.01	0	2.94	1.85
JUN	0.98	0.97	1.38	2.29
AP-1 Complex Hs	1.23	1.19	1.68	2.31
EIF2S1 P@S52	0.66	1.09	1.53	1.49
Thapsigargin	1.15	1.17	1.49	1.67
taof(ATF2)	1.4	1.03	1.72	1.73
taof(AP-1 complex Hs)	1.74	1.48	2.74	2.87
ATF4	2.13	2.32	1.96	2.15
Acrolein	1.35	1.87	2.16	2.11
EIF2S1 P@?	0.85	1.99	2.57	2.23
Glutathione	-4.07	-6.35	-0.33	-1.1
PDIA3	-1.65	-1.76	-1.54	-0.82
catof(proteasome complex (sensu Eukarya) Hs)	-0.44	-0.84	-0.97	-1
DNAJC3	-0.17	-0.42	-0.98	-0.76
taof(ATF3)	-1.66	-0.54	-0.08	-0.07
ATF3	0	0.08	0.32	0.3
HMOX1	0.01	-0.07	0.91	0.74
clasto lactacystin beta lactone	0.16	0.33	0.59	0.49
taof(ATF5)	0.18	0.13	0.38	0.25
ATF5	0.07	0.01	0.36	0.19
degradationof(EIF4G1)	-0.01	0.03	-0.06	0
EIF4G1	0	-0.07	0.04	0
taof(NFE2L2)	0.04	0	0.03	0.01
NQO1	0.01	0	0.03	0
TRIB3	0	0	0	0
XBP1	0.3	0.21	-0.01	-0.01
EIF2AK3	0.12	0.19	0.02	0.08



	I 3R4F 0.06	I THS2.2 1.125	FD 3R4F 0.225	FD THS2.2 2.25
NFE2L2	0.12	0.28	0	0
Tunicamycin	0.16	0.38	0.05	0.08
degradationof(ATF3)	0.02	-0.01	-0.27	-0.09
catof(TLR3)	0.09	-0.02	0	-0.01
MDM2	0.03	0	-0.16	-0.01
taof(DDIT3)	0.56	0.28	-0.53	-0.28
protein biosynthesis	-0.01	-0.18	-0.29	-0.29
paof(Ppp1r15a)	-0.01	-0.1	-0.6	-0.51
Ppp1r15a	0.16	0.03	-0.6	-0.39
STAT3	0.6	0.49	0.86	0.34
ATF2	0.86	0.43	0.74	0.84
taof(STAT3)	1.14	0.97	1.31	0.6
kaof(MAPK9)	0.97	0.9	0.98	1.01
kaof(MAP3K5)	0.95	1.17	0.01	0.09
Nitric oxide	1.11	1.43	0.27	0.41
T(ATF6)	0.94	1.41	0.32	0.58
taof(XBP1)	0.85	0.81	0.07	0.08
ERN1	0.5	0.86	0.04	0.12
ATF6	0.57	0.92	0.12	0.3
kaof(p38 MAPK family Hs)	5.14	2.5	0.68	1.31
taof(NFKB Complex Hs)	4.66	3.37	0.14	0.34
NFKB Complex Hs	4.27	4.28	0.09	0.19
catof(TLR4)	1.79	0.09	0	0
TLR4	2.73	0.26	0.02	0
Particulate Matter	6.73	10.07	0.18	1.13
Reactive Oxygen Species	6.26	7.24	0.32	0.82
response to endoplasmic reticulum stress	4.25	5.61	2.79	3.62
taof(ATF4)	5.34	2.93	1.78	2.15
ATF2 P@T71	3.84	2.4	3.86	4.24
kaof(EIF2AK3)	3.05	4.33	3.4	3.7
kaof(JNK family Hs)	3.06	3.05	2.76	2.88

