

Transcription factor nuclear factor erythroid-2 mediates expression of the cytokine interleukin 8, a known predictor of inferior outcome in patients with myeloproliferative neoplasms

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Online Supplementary Table 1. Genes whose expression levels are modulated by changes in NF-E2 levels.

TABLES

Rank	Affymetrix ID	SYMBOL	DESCRIPTION	ACC	effect size		adj.p.	p - value	known target of	
					NF-E2	NF-E2			NF-E2	NRF2
1	3456666	NFE2	nuclear factor (erythroid-derived 2), 45kDa	NM_001136023	2,93	0,54	0,003	0,0000002		
2	3819609				0,47	1,44	0,012	0,000002		
3	2731332	IL8	interleukin 8	NM_000584	1,91	0,55	0,012	0,000002		
4	2372719	RGS18	regulator of G-protein sigling 18	NM_130782	1,14	0,62	0,364	0,0001		Shen et al. / 2006
5	3834379	CEACAM6	carcinoembryonic antigen-related cell adhesion molecule 6	NM_002483	0,55	1,09	0,387	0,0001		
6	2831968				0,34	1,12	0,508	0,0002		
7	3252577	VDAC2	voltage-dependent anion channel 2	NM_003375	0,64	1,04	0,508	0,0002		
8	2980516	CNKSR3	CNKSR family member 3	NM_173515	0,85	0,62	0,509	0,0005		
9	3676670				0,60	1,10	0,509	0,0006		
10	3090436	NEFM	neurofilament, medium polypeptide	NM_005382	0,52	0,56	0,509	0,0007		
11	2366422	ATP1B1	ATPase, +/K+ transporting, beta 1 polypeptide	NM_001677	0,87	0,60	0,509	0,0007		
12	3069082	TFEC	transcription factor EC	NM_012252	0,80	0,51	0,509	0,0008		
13	2840728				0,55	0,96	0,509	0,0008		
14	3089102	EPB49	erythrocyte membrane protein band 4.9 (dematin)	NM_001978	1,00	0,60	0,509	0,0009		Steiner et al. / 2009
15	3275510				0,71	0,94	0,509	0,0010		
16	2453307	CD34	CD34 molecule	NM_001773	0,68	0,99	0,509	0,0010		
17	3434562	UNC119B	unc-119 homolog B (C. elegans)	NM_001080533	0,71	1,02	0,509	0,0010		
18	3869784	ZNF28	zinc finger protein 28	NM_006969	0,89	0,70	0,509	0,0011		
19	2482211	CHAC2	ChaC, cation transport regulator homolog 2 (E. coli)	NM_001008708	0,61	0,88	0,509	0,0012		
20	3740483				0,64	0,78	0,509	0,0012		
21	2793310	C4orf27	chromosome 4 open reading frame 27	NM_017867	0,59	0,83	0,509	0,0012		
22	2758870	CYTL1	cytokine-like 1	NM_018659	0,94	0,56	0,509	0,0013		
23	2949118	LTB	lymphotoxin beta (TNF superfamily, member 3)	NM_002341	1,34	0,99	0,509	0,0014		
24	2746269	LSM6	LSM6 homolog, U6 small nuclear R associated	NM_007080	0,60	0,81	0,509	0,0015		
25	3764245	MPO	myeloperoxidase	NM_000250	0,70	1,00	0,509	0,0015		
26	2420790	C1orf52	chromosome 1 open reading frame 52	NR_024113	0,74	0,71	0,509	0,0016		
27	2510464	TNFAIP6	tumor necrosis factor, alpha-induced protein 6	NM_007115	1,03	0,67	0,509	0,0017		
28	3995392	ZNF185	zinc finger protein 185 (LIM domain)	NM_007150	1,21	0,68	0,509	0,0017		
29	3431553	C12orf24	chromosome 12 open reading frame 24	NM_013300	0,65	0,93	0,509	0,0017		
30	3212298				0,70	1,07	0,509	0,0017		
31	3319319				0,78	1,44	0,509	0,0018		

32	3742424				0,85	0,68	0,509	0,0021	
33	2424102	CNN3	calponin 3, acidic	NM_001839	0,75	0,81	0,509	0,0021	
34	3831284				0,73	1,04	0,509	0,0022	
35	3740499				0,69	0,85	0,509	0,0022	
36	2908509				0,72	0,91	0,509	0,0023	
37	2499234	CCDC138	coiled-coil domain containing 138	NM_144978	0,68	0,91	0,509	0,0023	
38	2614142	NR1D2	nuclear receptor subfamily 1, group D, member 2	NM_005126	0,71	0,78	0,509	0,0025	
39	3737874	BAHCC1	BAH domain and coiled-coil containing 1	NM_001080519	0,75	1,17	0,509	0,0025	
40	2384705	URB2	URB2 ribosome biogenesis 2 homolog (S. cerevisiae)	NM_014777	0,74	0,91	0,509	0,0025	
41	2794408	HPGD	hydroxyprostaglandin dehydrogenase 15-(D)	NR_027332	1,17	0,79	0,509	0,0025	
42	2735598	TIGD2	tigger transposable element derived 2	NM_145715	0,71	0,77	0,509	0,0026	
43	3360456	HBE1	hemoglobin, epsilon 1	NM_005330	1,50	1,06	0,509	0,0027	Gui et al. / 2003
44	2993647				0,70	0,82	0,509	0,0028	
45	2995254	C7orf41	chromosome 7 open reading frame 41	NM_152793	0,99	0,66	0,509	0,0029	
46	3089360	SLC39A14	solute carrier family 39 (zinc transporter), member 14	NM_001128431	0,74	0,93	0,509	0,0029	Shen et al. / 2006
47	2645906	PLS1	plastin 1 (I isoform)	NM_001145319	0,69	0,89	0,509	0,0029	
48	3815223	PRTN3	protease 3	NM_002777	0,74	0,97	0,509	0,0029	
49	2474341	CAD	carbamoyl-phosphate synthetase 2	NM_004341	0,76	0,95	0,509	0,0030	
50	2930753	C6orf72	chromosome 6 open reading frame 72	AY358952	0,57	0,78	0,509	0,0031	
51	2991860	ITGB8	integrin, beta 8	NM_002214	1,18	0,74	0,509	0,0031	
52	2999485	STK17A	serine/threonine kinase 17a	NM_004760	0,94	0,71	0,509	0,0031	
53	3699759				0,75	1,08	0,509	0,0031	
54	2761842	PROM1	prominin 1	NM_001145847	0,65	0,82	0,509	0,0031	
55	3862077	EID2	EP300 interacting inhibitor of differentiation 2	NM_153232	0,72	0,92	0,509	0,0031	
56	2409613	ERI3	exoribonuclease 3	NM_024066	0,67	0,88	0,509	0,0032	
57	3416500				0,67	0,96	0,509	0,0033	
58	4016308	BEX1	brain expressed, X-linked 1	NM_018476	0,61	0,85	0,509	0,0034	
59	3322071				0,62	0,97	0,509	0,0035	
60	3455946	EIF4B	eukaryotic translation initiation factor 4B	NM_001417	0,80	1,45	0,509	0,0035	
61	2406783	CSF3R	colony stimulating factor 3 receptor (granulocyte)	NM_156039	0,73	0,91	0,509	0,0036	
62	2781138	LEF1	lymphoid enhancer-binding factor 1	NM_016269	0,76	1,14	0,509	0,0037	
63	3519309	SPRY2	sprouty homolog 2 (Drosophila)	NM_005842	0,72	0,98	0,509	0,0038	
64	3453386				0,65	0,75	0,509	0,0039	
65	3309345	SFXN4	sideroflexin 4	NM_213649	0,65	0,96	0,509	0,0040	
66	3249043	REEP3	receptor accessory protein 3		0,71	1,07	0,509	0,0042	

67	2334314	HPDL	4-hydroxyphenylpyruvate dioxygenase-like	NM_032756	0,73	0,88	0,509	0,0042	
68	3275268				0,72	1,30	0,509	0,0043	
69	2700365	TM4SF1	transmembrane 4 L six family member 1	NM_014220	0,97	0,62	0,509	0,0043	
70	3470370				0,69	0,94	0,509	0,0043	
71	2874686	HINT1	histidine triad nucleotide binding protein 1	NR_024610	0,58	0,83	0,509	0,0044	
72	3844039				0,52	0,84	0,509	0,0044	
73	2487696	PCYOX1	prenylcysteine oxidase 1	NM_016297	0,71	0,73	0,509	0,0044	
74	2882098	SPARC	secreted protein, acidic, cysteine-rich (osteonectin)	NM_003118	0,73	0,84	0,509	0,0044	
75	2820865	ARSK	arylsulfatase family, member K	NM_198150	0,70	0,82	0,509	0,0045	
76	3475106				0,72	1,04	0,509	0,0045	
77	3386217	CHORDC1	cysteine and histidine-rich domain (CHORD)-containing 1	NM_012124	0,48	0,92	0,509	0,0046	Kwak et al. 2003
78	2347732	TMEM56	transmembrane protein 56	NM_152487	0,66	0,81	0,509	0,0047	
79	3441685	VWF	von Willebrand factor	NM_000552	1,09	0,65	0,509	0,0047	
80	2443450	SELL	selectin L	NM_000655	0,75	1,07	0,509	0,0048	
81	2791197	PDGFC	platelet derived growth factor C	NM_016205	0,70	0,77	0,509	0,0048	
82	2361761	NTRK1	neurotrophic tyrosine kinase, receptor, type 1	NM_001007792	0,94	0,77	0,509	0,0049	
83	3044938	RP9P	retinitis pigmentosa 9 pseudogene	NR_003500	0,70	0,74	0,509	0,0049	
84	3527684	RSE3	ribonuclease, Rse A family, 3 (eosinophil cationic protein)	NM_002935	0,63	0,88	0,509	0,0049	
85	3401099	FKBP4	FK506 binding protein 4, 59kDa	NM_002014	0,73	0,94	0,509	0,0050	
86	3205586	EXOSC3	exosome component 3	NM_016042	0,74	0,98	0,509	0,0050	
87	3665846	THAP11	THAP domain containing 11	NM_020457	0,72	0,91	0,509	0,0050	
88	2773434	CXCL2	chemokine (C-X-C motif) ligand 2	NM_002089	1,17	0,50	0,509	0,0051	
89	2349402	AMY2B	amylase, alpha 2B (pancreatic)	NM_020978	0,71	0,70	0,509	0,0051	
90	2599907				0,69	0,64	0,509	0,0051	
91	2601499	FAM124B	family with sequence similarity 124B	NM_024785	0,80	0,76	0,509	0,0052	
92	2595252	SUMO1	SMT3 suppressor of mit two 3 homolog 1 (S. cerevisiae)	NM_003352	0,66	0,89	0,509	0,0052	
93	2514516	KLHL23	kelch-like 23 (Drosophila)	NM_144711	0,64	0,92	0,509	0,0052	
94	3556238				0,75	0,44	0,509	0,0052	
95	2476510	LTBP1	latent transforming growth factor beta binding protein 1	NM_206943	1,04	0,67	0,509	0,0053	
96	2807886	FBXO4	F-box protein 4	NM_012176	0,72	0,82	0,509	0,0053	
97	2560704	C2orf3	chromosome 2 open reading frame 3	NM_003203	0,71	0,83	0,509	0,0053	
98	2418929	PIGK	phosphatidylinositol glycan anchor biosynthesis, class K	NM_005482	0,67	0,79	0,509	0,0054	
99	3891342	TUBB1	tubulin, beta 1	NM_030773	1,38	0,57	0,509	0,0054	Lecine et al. 2000
100	3304970	SH3PXD2A	SH3 and PX domains 2A	NM_014631	0,65	1,17	0,509	0,0054	

Depicted are the rank order, the most deregulated gene being placed on rank 1; the Affymetrix ID; a brief description of the gene function, if known; the GenBank accession code; the regulation by NFE2, shown as effect size, either up- or down-regulation; the FDR adjusted p-value; the p-value; and whether the gene is known to be a NFE2 or Nr2 target, the appropriate references are given.