

Table 3. Annotation and activities of AP-1 modulators

Fold Induction	Seq. Confirm	Gene name	Match annotation
44.8	Y	UBB	gb BC026301.1 Homo sapiens, clone MGC:24729 IMAGE:4280629, mRNA, complete cds
185.3	Y	FOS	ref NM_005252.2 Homo sapiens v-fos FBJ murine osteosarcoma viral oncogene homolog (FOS), mRNA
190.2	Y	GADD45G	ref NM_006705.2 Homo sapiens growth arrest and DNA-damage-inducible, gamma (GADD45G), mRNA.
81.9	Y	JUN	ref XM_001472.4 Homo sapiens v-jun sarcoma virus 17 oncogene
189.0	Y	SPOP	gb BC001269.1 BC001269 Homo sapiens, speckle-type POZ protein, clone MGC:5068 IMAGE:3461565, mRNA, complete cds
15.7	Y	LEPROTL1	ref XM_011695.6 Homo sapiens leptin receptor overlapping transcript-like 1 (LEPROTL1), mRNA
54.8	Y	FGR	gb BC002836.1 BC002836 Homo sapiens, Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog, clone MGC:3553 IMAGE:3634465, mRNA, complete cds
16.5	Y	Unannotated	emb AL445237.16 AL445237 Human DNA sequence from clone RP13-238F13 on chromosome 10, complete sequence [Homo sapiens]
56.1	Y	MID2	ref NM_012216.2 Homo sapiens midline 2 (MID2), transcript variant 1, mRNA.
78.8	Y	TRAF6	ref NM_004620.1 Homo sapiens TNF receptor-associated factor 6 (TRAF6), mRNA
42.3	Y	ZNT5	gb AF461760.1 Homo sapiens zinc transporter 5 (ZNT5) mRNA,...
73.5	Y	C6orf5	ref XM_165674.1 Homo sapiens chromosome 6 open reading frame 5 (C6orf5), mRNA
10.5	Y	SNCA	ref NM_000345.2 Homo sapiens synuclein, alpha (non A4 component of amyloid precursor) (SNCA), transcript variant NACP140, mRNA
7.45	Y	Unannotated	gb BC018708.1 BC018708 Homo sapiens, hypothetical protein FLJ14451, clone MGC:31767 IMAGE:4111500, mRNA, complete cds
12.1	Y	SSR2	emb X74104.1 HSSSR H.sapiens mRNA for TRAP beta subunit
27.8	Y	FASTK	ref NM_033015.1 Homo sapiens FAST kinase (FASTK) transcript variant 2, mRNA
65.3	Y	Unannotated	dbj AK027878.1 AK027878 Homo sapiens cDNA FLJ14972 fis, clone THYRO1000715
59.6	Y	CENTA1	ref NM_006869 Homo sapiens centaurin, alpha 1 (CENTA1), mRNA.
86.4	Y	RICK	gb AF027706.1 AF027706 Homo sapiens serine/threonine kinase RICK (RICK) mRNA, complete cds
19.5	Y	Unannotated	ref XM_035634.2 Homo sapiens hypothetical protein, clone 24751 (CL24751), mRNA
183.0	Y	BLK	ref XM_034315.1 Homo sapiens B lymphoid tyrosine kinase (BLK), mRNA
418.5	Y	TYRO3	ref NM_006293 Homo sapiens TYRO3 protein tyrosine kinase (TYRO3), mRNA.
18.0	Y	Unannotated	gb AF173157.1 AF173157 Homo sapiens MSTP098 (MST098) mRNA
31.1	Y	Unannotated	dbj AK074258.1 Homo sapiens cDNA FLJ23678 fis, clone HEP08720
57.5	Y	TERE1	ref NM_013319.1 Homo sapiens transitional epithelia response protein (TERE1), mRNA
16.2	Y	INPP1	ref XM_002279.6 Homo sapiens inositol polyphosphate-1-phosphatase (INPP1), mRNA
54.9	Y	HGS	gb BC003565.1 BC003565 Homo sapiens, hepatocyte growth factor-regulated tyrosine kinase substrate, clone MGC:2045 IMAGE:3544197, mRNA, complete cds
422.7	Y	ERBB2	emb X03363.1 HSERB2R Human c-erb-B-2 mRNA
15.3	Y	SNX3	gb BC016863.1 BC016863 Homo sapiens, Similar to sorting nexin 3, clone MGC:17570 IMAGE:3846511, mRNA, complete cds
28.8	Y	RBM4	ref NM_002896.1 Homo sapiens RNA binding motif protein 4 (RBM4), mRNA
42.2	Y	NTKL	ref XM_166235.1 Homo sapiens N-terminal kinase-like (NTKL), mRNA
29.6	Y	Unannotated	gb BC017168.1 BC017168 Homo sapiens, clone MGC:9517 IMAGE:3907072, mRNA, complete cds
38.8	Y	ITGA7	emb AJ228839.1 HSAJ8839 Homo sapiens ITGA7 gene, exon 4
105.3	Y	FOSL1	gb BC016648.1 BC016648 Homo sapiens, FOS-like antigen-1, clone MGC:9264 IMAGE:3925241, mRNA, complete cds
361.5	Y	MAP3K11	gb BC011263.1 BC011263 Homo sapiens, Similar to mitogen-activated protein kinase kinase kinase 11, clone MGC:17114 IMAGE:4215281, mRNA, complete cds
220.1	Y	P2RY2	gb BC028135.1 Homo sapiens, purinergic receptor P2Y, G-protein coupled, 2, clone MGC:40010 IMAGE:5215817, mRNA, complete cds
10.7	Y	Unannotated	gb BC022023.1 BC022023 Homo sapiens, Similar to hypothetical protein DKFp434A171, clone IMAGE:4824658, mRNA

20.1	Y	Unannotated	gb BC016958.1 BC016958 Homo sapiens, hypothetical protein DKFZp761H1710, clone MGC:21544 IMAGE:4151712, mRNA, complete cds
11.5	Y	GRO2	ref XM_003510.4 Homo sapiens GRO2 oncogene (GRO2),
9.5	Y	Unannotated	ref XM_042224.2 Homo sapiens hypothetical protein FLJ11151 (FLJ11151), mRNA
10.0	Y	TGT	ref NM_031209.1 Homo sapiens tRNA-guanine transglycosylase (TGT), mRNA
18.0	Y	Unannotated	gb AF090916.1 AF090916 Homo sapiens clone HQ0312
15.4	Y	SNRPN	gb BC025178.1 Homo sapiens, small nuclear ribonucleoprotein polypeptide N, clone MGC:34180 IMAGE:4158469, mRNA, complete cds
24.6	N		
65.6	Y	LRG	ref NM_052972.1 Homo sapiens leucine-rich alpha-2-glycoprotein (LRG), mRNA
30.7	N		
37.2	N		
28.3	Y	Unannotated	gb AC007026.3 AC007026 Homo sapiens PAC clone RP4-751G11 from 7q31-q32, complete sequence
17.6	Y	PILRb	dbj AK056412.1 AK056412 Homo sapiens cDNA FLJ31850 fis, clone NT2RP7000600, highly similar to Homo sapiens activating receptor PILRbeta mRNA
14.0	N		
10.5	Y	G6PT1	gb AF110821.1 AF110821 Homo sapiens glucose-6-phosphate translocase mRNA, sequence
12.4	Y	CTSB	ref XM_035662.2 Homo sapiens cathepsin B (CTSB), mRNA
11.3	Y	PRKCZ	ref XM_049769.4 Homo sapiens protein kinase C, zeta (PRKCZ), mRNA
11.6	Y	EPC1	gb AF277374.1 AF277374 Homo sapiens enhancer of polycomb mRNA, complete cds
20.0	N		
79.7	Y	GADD45B	ref XM_030485.3 Homo sapiens growth arrest and DNA-damage-inducible, beta (GADD45B), mRNA
66.3	Y	PECI	ref NM_006117.1 Homo sapiens peroxisomal D3,D2-enoyl-CoA isomerase (PECI), mRNA
86.7	Y	NR2F2	gb BC014664.1 BC014664 Homo sapiens, nuclear receptor subfamily 2, group F, member 2, clone MGC:23125 IMAGE:4849984, mRNA, complete cds
19.3	Y	Unannotated	gb AC023154.5 Homo sapiens chromosome 4 clone RP11-752D24, complete sequence
19.8	Y	ATF3	ref NM_001674.1 Homo sapiens activating transcription factor 3 (ATF3), mRNA
75.4	Y	FN1	gb U42594.1 HSU42594 Human fibronectin (FN1) mRNA, splice variant, partial cds
14.7	N		gb AC008243.6 AC008243 Homo sapiens, clone RP11-45L9, complete sequence
16.1	N		gb AC012047.8 Homo sapiens chromosome 10 clone RP11-423F10, complete sequence
14.2	Y	HES1	ref XM_039925.4 Homo sapiens hairy homolog (Drosophila) (HRY), mRNA
43.8	Y	COL1A1	ref XM_012651.5 Homo sapiens collagen, type I, alpha 1
23.1	Y	Unannotated	dbj AK021623.1 AK021623 Homo sapiens cDNA FLJ11561 fis, clone HEMBA1003142
16.6	N		
27.4	N		
47.1	N		
64.6	N		
83.5	Y	KDEL3	gb BC001277.1 BC001277 Homo sapiens, KDEL (Lys-Asp-Glu-Leu) endoplasmic reticulum protein retention receptor 3, clone MGC:5099 IMAGE:3462392, mRNA, complete cds
44.0	N		
86.3	Y	ABHD2	ref NM_007011 Homo sapiens abhydrolase domain containing 2 (ABHD2), mRNA.

The activities of the top 0.3% of nonredundant AP-1 activators identified through GFAcT analysis were reconfirmed in 96-well transient transfection assays. Relative induction of AP-1(PMA) luciferase construct as a function of parental control (pTAL-luciferase) vector activation is reported as fold induction. Gene names, descriptions, and accession numbers are also provided. Where applicable, genes that encode hypothetical proteins and predicted proteins and genes without previously predicted ORFs are designated as unannotated. Sequences for a majority of cDNAs shown were manually confirmed, as indicated.