SUPPLEMENTARY TABLE 1

GENES UPREGULATED BY CREB AFTER 8 WEEKS OVEREXPRESSION VS.CONTROLS AND THE EFFECT OF mCREB (data for Fig. 1a)

AFFY ID	*P*–value	$\log_2$ ratio CREB/control	$\log_2$ ratio mCREB/control	Gene
98857_at	0.000205	3.4	–2	Cluster Incl U29086:Atonal homolog 2 (Drosophila)
93224_at	0.006442	2.5	0.4	Cluster Incl M31649 T-cell receptor rearranged alpha-chain mRNA V-J-C region
102700_at	0.000001	1.8	–0.7	Cluster Incl U49251:T-box brain gene 1
96055_at	0	1.8	–0.6	Cluster Incl X59520:Cholecystokinin
92200_at	0.000133	1.7	–0.9	Cluster Incl AB010149:Mus musculus gene for PACAP ligand precursor
98280_at	0.003166	1.7	0	Cluster Incl AB021228:membrane-type-3 matrix metalloproteinase
93294_at	0	1.7	0	Cluster Incl M70642:Fibroblast inducible secreted protein
102727_at	0.000001	1.7	–0.9	Cluster Incl X55573:Brain derived neurotrophic factor
93370_at	0.000025	1.6	–1.2	Cluster Incl AW046243:EST
93479_at	0.000004	1.6	–0.9	Cluster Incl AW122413:EST
98808_at	0.000236	1.6	–0.3	Cluster Incl D83507:Neurogenic differentiation 2
93654_at	0.000133	1.2	0.3	Cluster Incl U66201:Fibroblast growth factor 12
97208_at	0.003748	1.1	–0.4	Cluster Incl AB020983:Mus musculus Ash2l mRNA, similar to Drosophila ash2
104592_i_at	0.000002	1.1	0	Cluster Incl AI595996:myocyte enhancer factor 2C,Mef2c
92346_at	0.000001	1.1	–0.5	Cluster Incl X05640:Neurofilament, medium polypeptide
100507_at	0.000005	1.1	–0.5	Cluster Incl Y09257:M.musculus mRNA for NOV protein
99623_s_at	0	1	–0.4	Cluster Incl D78265:Mus musculus mRNA for pancortin-4
101883_s_at	0.000009	1	–0.6	Cluster Incl L22977:Mouse A12 mRNA, complete cds
96258_at	0	0.9	–0.2	Cluster Incl AI843448:microsomal glutathione S-transferase 3, Mgst3
160901_at	0	0.9	–0.6	Cluster Incl V00727:FBJ osteosarcoma oncogene (cFos)
98351_g_at	0.000079	0.8	0	Cluster Incl AF008914:Mus musculus somatostatin receptor type 2 (sst2) gene
103438_at	0.000011	0.8	–0.1	Cluster Incl AF096875:Mus musculus type 2 deiodinase mRNA, complete cds
95670_at	0	0.8	–0.5	Cluster Incl AI839868:stathmin-like 2
95669_g_at	0.000047	0.8	–0.3	Cluster Incl AI840972:stathmin-like 2
95541_at	0.000003	0.8	–0.1	Cluster Incl AW125506:Chr 6, Wayne State University 176, expressed
92317_at	0.000001	0.8	–0.5	Cluster Incl U29088:HU-antigen D
102715_at	0.000006	0.8	–0.5	Cluster Incl X74134:Avian erythroblastic leukemia viral oncogene homolog 3
93430_at	0.002375	0.7	–0.2	Cluster Incl AF000236:Chemokine orphan receptor 1
98350_at	0.000099	0.7	0.2	Cluster Incl AF008914:Mus musculus somatostatin receptor type 2 (sst2) gene,
93421_at	0.000018	0.7	–0.2	Cluster Incl AF033655:PFTAIRE protein kinase 1
97357_at	0.000001	0.7	–0.3	Cluster Incl AI426400:myocyte enhancer factor 2C
99494_at	0	0.7	–0.3	Cluster Incl AJ001700:Mus musculus mRNA for neuroserpin
100933_at	0.001152	0.7	–0.2	Cluster Incl D45208:Mus musculus mRNA for HPC-1/syntaxin, complete cds
94100_s_at	0.000357	0.6	–0.4	Cluster Incl AF011543:putative capacitative calcium entry channel Trp4 mRNA
95337_at	0.00224	0.6	–0.2	Cluster Incl AF057367:male-specific histocompatibility antigen H-YDb (Uty)
104179_at	0.009235	0.6	–0.5	Cluster Incl AI788669:expressed sequence AI788669
97909_at	0	0.6	–0.4	Cluster Incl AI838080:leukemia–associated gene, Lag (stathmin)
96709_at	0	0.6	–0.3	Cluster Incl AI839839:Mus musculus, Similar to chromosome 9 open reading
160961_at	0.000063	0.6	–0.3	Cluster Incl AI853347:ESTs, similar to GTPase–activating protein Spa–1
93887_at	0.004188	0.6	–0.3	Cluster Incl AI854351:multiple PDZ domain protein, Mpdz
93159_at	0.008345	0.6	–0.3	Cluster Incl AW122995:expressed sequence R74640
95701_at	0.000693	0.6	–0.4	Cluster Incl AW124069:EST, zinc finger domain
101426_at	0.002667	0.6	–0.4	Cluster Incl AW125333:expressed sequence AI848610
92989_f_at	0	0.6	–0.3	Cluster Incl D86214:mRNA for Ca2+ dependent activator protein for secretion
93721_at	0.000177	0.6	0.2	Cluster Incl L12367:adenylyl cyclase–associated protein (CAP) mRNA
104590_at	0	0.6	–0.1	Cluster Incl L13171:Myocyte enhancer factor 2C
104591_g_at	0.000001	0.6	–0.2	Cluster Incl L13171:Myocyte enhancer factor 2C
99442_at	0.000382	0.6	–0.3	Cluster Incl L34214:glucocorticoid regulated endocrine protein (RESP18) mRNA
92908_at	0.000002	0.6	–0.1	Cluster Incl L36829:alphaA-crystalline-binding protein I (alphaA-CRYBP1) gene
94833_at	0.000177	0.6	–0.4	Cluster Incl M91380:Follistatin–like
92938_at	0.000015	0.6	–0.1	Cluster Incl X61430:M.musculus mRNA for GABA-A receptor alpha 1 subunit
96269_at	0.000107	0.5	–0.1	Cluster Incl AA716963:similar to Isopentenyl-diphosphate delta-isomerase
104743_at	0.00005	0.5	0	Cluster Incl AB022100:Mus musculus mRNA for T-cadherin, complete cds
93411_at	0.000007	0.5	–0.6	Cluster Incl AI152789:EST
92526_f_at	0.000739	0.5	–0.2	Cluster Incl AW122114:EST
100571_at	0.000027	0.5	–0.1	Cluster Incl AW123934:lysosomal-associated protein transmembrane 4B

92618_at	0.001991	0.5	0	Cluster Incl AW125253:small EDRK-rich factor 2, Serf2
94445_at	0.00057	0.5	0	Cluster Incl AW125273:expressed sequence AI115446
102808_at	0.000107	0.5	–0.4	Cluster Incl L48687:Sodium channel, voltage–gated, type I, beta polypeptide
92635_at	0.000841	0.5	–0.1	Cluster Incl M13444:Mouse alpha–tubulin isotype M-alpha-4 mRNA
95419_at	0.000002	0.5	–0.2	Cluster Incl M29260:Mouse histone 1–0 gene, 5 end, and promoter region
98967_at	0.000037	0.5	–0.1	Cluster Incl U04827:brain fatty acid–binding protein (B-FABP) gene
92673_at	0.000271	0.5	–0.1	Cluster Incl U58886:Mus musculus endophilin I mRNA, complete cds
101516_at	0.000063	0.5	0.5	Cluster Incl U60473:CD59 antigen
103067_at	0.000357	0.5	–0.2	Cluster Incl Z48587:M.musculus ral–A mRNA
104444_at	0.00001	0.4	–0.1	Cluster Incl AA689927:EST
97770_s_at	0.000002	0.4	–0.2	Cluster Incl AA733372:Chr 6, Wayne State University 176, expressed
92546_r_at	0.000001	0.4	–0.3	Cluster Incl AB006361:mRNA for prostaglandin D synthetase, complete cds
93316_at	0.001991	0.4	–0.1	Cluster Incl AB017026:oxysterol–binding protein, complete cds
98554_at	0.000693	0.4	–0.2	Cluster Incl AB033922:Ndr1 related protein Ndr3, complete cds
99602_at	0.000955	0.4	–0.2	Cluster Incl AF064088:transcription factor GIF mRNA, complete cds
99603_g_at	0.001304	0.4	–0.1	Cluster Incl AF064088:transcription factor GIF mRNA, complete cds
160170_at	0.000955	0.4	–0.1	Cluster Incl AF069708:SCG10–like–protein (Sclip) mRNA, complete cds
100946_at	0.000047	0.4	0.5	Cluster Incl AF109906:Mus musculus MHC class III region RD gene, partial cds
96650_at	0.000437	0.4	–0.1	Cluster Incl AI837724:AU RNA binding protein/enoyl–coenzyme A hydratase
97356_at	0.00029	0.4	–0.2	Cluster Incl AI839653:EST
100628_at	0.000133	0.4	0	Cluster Incl AI840263:NADH dehydrogenase (ubiquinone) 1, subcomplex 1
160708_at	0.000739	0.4	0	Cluster Incl AI840446:schwannomin interacting protein 1, Schip1
160196_at	0.000177	0.4	–0.2	Cluster Incl AI843662:stromal membrane–associated protein,Smap1-pending
93560_at	0.000143	0.4	–0.1	Cluster Incl AI845882:acylphosphatase 1, erythrocyte (common) type (putative)
97458_at	0.000191	0.4	0.2	Cluster Incl AI845935:guanine nucleotide binding protein (G protein), beta 1
103235_at	0.000054	0.4	0.1	Cluster Incl AI848386:neuropeptide Y (putative)
92426_at	0.00004	0.4	–0.2	Cluster Incl AI877157:uc54h09.r1 Mus musculus cDNA, 5 end
102145_f_at	0.000955	0.4	–0.1	Cluster Incl AW046732:estrogen related receptor, alpha, Esrra
103955_at	0.001474	0.4	–0.2	Cluster Incl AW050325:crystallin, lamda 1,Cryl1
96353_at	0.001017	0.4	–0.1	Cluster Incl AW125346:EST
102920_at	0.000841	0.4	0.1	Cluster Incl AW215585:EST
98059_s_at	0.000955	0.4	–0.2	Cluster Incl D49733:Lamin A
94334_f_at	0.000006	0.4	–0.3	Cluster Incl L27220: neuronal intermediate filament protein (alpha-internexin)
101518_at	0.002991	0.4	0	Cluster Incl U38981:Mus musculus uterine mRNA, complete cds
100026_at	0.001876	0.4	–0.1	Cluster Incl U42443:Mus musculus MECA39 mRNA, complete cds
102704_at	0.000012	0.4	–0.2	Cluster Incl U88623:Aquaporin 4
95436_at	0.002825	0.4	0.2	Cluster Incl X51468:Somatostatin
160181_at	0.001017	0.4	–0.3	Cluster Incl X95818:Synaptophysin
94276_at	0.001226	0.3	–0.1	Cluster Incl AF064635:putative steroid dehydrogenase (KIK–I) mRNA
93013_at	0.000047	0.3	–0.3	Cluster Incl AF077861:Inhibitor of DNA binding 2
95696_at	0.000467	0.3	0.1	Cluster Incl AI840882:thioredoxin–like 2
100539_at	0.002375	0.3	–0.2	Cluster Incl AI841279: brain acyl–CoA hydrolase
93485_at	0.001664	0.3	0.1	Cluster Incl AI844911:EST
99166_at	0.000649	0.3	–0.1	Cluster Incl AI845963:EST
94019_at	0.001082	0.3	–0.1	Cluster Incl AI852534:basic leucine zipper and W2 domains 1
99618_at	0.000004	0.3	0.1	Cluster Incl AI853523:EST
161436_s_at	0.001474	0.3	0	Cluster Incl AV345565:adenosine deaminase, RNA–specific, B1
160462_f_at	0.000029	0.3	–0.1	Cluster Incl AW050256:tubulin, beta 3
93667_at	0.000608	0.3	–0.2	Cluster Incl AW120511:F–box and WD–40 domain protein 7, archipelago
101047_at	0.000739	0.3	–0.1	Cluster Incl AW123697:EST
95673_s_at	0.000017	0.3	–0.1	Cluster Incl AW124113:brain abundant, membrane attached signal protein
1160376_at	0.000034	0.3	0	Cluster Incl AW125508: EST
101198_at	0.000143	0.3	–0.3	Cluster Incl D38614:Mouse 921-S mRNA for presynaptic protein, complete cds
160610_at	0.001876	0.3	–0.1	Cluster Incl D86916:Mus musculus mRNA for CNR1, complete cds
102321_at	0.002375	0.3	–0.2	Cluster Incl M93422:Adenylate cyclase 6
99048_g_at	0.002112	0.3	0.1	Cluster Incl U81317:Myelin–associated oligodendrocytic basic protein

*genes represented more then once were identified multiple times on the array

*Genes in red were significantly downregulated by mCREB ($P < 0.01$)

* P values of 0 were < 0.000001

Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. P–value: the corresponding P–value for the comparison of experimental values vs. controls for each gene. Log_2 ratio: the log_2 ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

SUPPLEMENTARY TABLE 2

GENES DOWNREGULATED BY CREB AFTER 8 WEEKS OVEREXPRESSION VS.CONTROLS AND THE EFFECT OF mCREB (data for Fig. 1b)

AFFY ID	*P*-value	$\log_2$ ratio CREB/control	$\log_2$ ratio mCREB/control	Gene
94746_at	0.994204	–2.8	0.1	Cluster Incl L22338:Histocompatibility 2, T region locus 24
161466_r_at	0.992469	–1.3	–0.3	Cluster Incl AV347947:ankyrin repeat and SOCS box-containing protein 3
97735_at	0.999999	–0.9	–0.1	Cluster Incl M59811:Thyrotropin releasing hormone receptor
92502_at	0.997333	–0.8	–0.2	Cluster Incl X95504:M.musculus mRNA for zinc finger protein
95289_r_at	0.994506	–0.7	–0.2	Cluster Incl AA189811:EST, Similar to hypothetical protein FLJ10392
161051_at	0.993889	–0.7	–0.1	Cluster Incl D32132:Mouse gene for HES-5, complete cds
93682_at	0.999937	–0.7	0.1	Cluster Incl U89489:Mus musculus LIM homeobox protein cofactor CLIM-1b
94420_f_at	0.999643	–0.6	0.2	Cluster Incl AB000777:Cryptochrome 1 (photolyase-like)
93694_at	0.999351	–0.6	0.2	Cluster Incl AF036893:Mus musculus circadian clock protein (Per2)
98989_at	0.999689	–0.6	–0.3	Cluster Incl AF057368:7-dehydrocholesterol reductase
160778_at	0.993211	–0.6	0.2	Cluster Incl AI846236:expressed sequence AU021979
103389_at	0.998696	–0.6	0	Cluster Incl AJ224761: lysine-ketoglutarate reductase
162459_f_at	0.999846	–0.6	0.1	Cluster Incl AV010209:procollagen, type VI, alpha 1, Col6a1
161997_f_at	0.994652	–0.6	0.2	Cluster Incl AV329607:aldehyde dehydrogenase 2, mitochondrial, Aldh2
104337_f_at	0.99978	–0.6	0.6	Cluster Incl AW208938:EST similar to plakophilin2
99916_at	0.998613	–0.6	0.1	Cluster Incl D90242:Protein kinase C, eta
101058_at	0.999618	–0.6	0.2	Cluster Incl J00356:mouse alpha-amylase-1 mrna without leader
95705_s_at	1	–0.6	0.4	Cluster Incl J04181:Mouse A-X actin mRNA
99386_at	0.999307	–0.6	0	Cluster Incl M88301:POU domain, class 3, transcription factor 4
101786_at	0.992469	–0.6	0.5	Cluster Incl U03723:Potassium voltage gated channel, shaker related 4
99840_at	0.999982	–0.5	0.2	Cluster Incl AF026537:Mus musculus prodynorphin mRNA
93604_f_at	0.999809	–0.5	0.2	Cluster Incl AF061260:Mus musculus immunosuperfamily protein BI2
92773_at	0.99943	–0.5	0.1	Cluster Incl AF079528:Mus musculus IER5 (Ier5) gene
160579_at	0.999957	–0.5	0.3	Cluster Incl AI021125:mannosidase 1, alpha, Man 1a
103994_at	0.999981	–0.5	0	Cluster Incl AI152867:Piwi/Argonaute family protein meIF2C2, eIF2C2
104343_f_at	0.99999	–0.5	0.1	Cluster Incl AI845798:EST similar to phospholipase A2, group XII
160993_at	0.999667	–0.5	0.6	Cluster Incl AI854813:ESTs, similar to Ras GTPase-activating-like protein 1
94780_at	0.999979	–0.5	0	Cluster Incl AI987985:Chr 16, Wayne State University 73, expressed
102323_at	0.999969	–0.5	–0.1	Cluster Incl AJ002272:Huntingtin-associated protein 1
97210_at	0.999986	–0.5	–0.1	Cluster Incl AW048446:RIKEN cDNA 1700037H04 gene
102870_at	0.999963	–0.5	–0.1	Cluster Incl AW125272:EST
94246_at	0.999809	–0.5	0.3	Cluster Incl J04103:E26 avian leukemia oncogene 2, 3 domain
101034_at	0.999867	–0.5	–0.3	Cluster Incl U07617:Growth factor receptor bound protein 2
92309_i_at	0.999519	–0.5	0	Cluster Incl X58287:Protein tyrosine phosphatase, receptor-type, M
95493_at	0.999996	–0.5	0.1	Cluster Incl X66405:Procollagen, type VI, alpha 1
102900_at	0.998233	–0.5	0.2	Cluster Incl X90871:Sine oculis-related homeobox 3, (Drosophila)
99607_at	0.99971	–0.5	–0.2	Cluster Incl Z47088:Transcription elongation factor B (SIII), polypeptide 1 like
160843_at	0.999351	–0.4	–0.3	Cluster Incl AA796214:spindlin
101631_at	0.99971	–0.4	–0.3	Cluster Incl AF009414:Mus musculus SOX11 (Sox11)
96580_at	0.999885	–0.4	0.1	Cluster Incl AF020199:Mus musculus transcription factor PBX3a (PBX3)
94457_at	0.999995	–0.4	0	Cluster Incl AW049735:ubiquitin conjugating enzyme 7 interacting protein 3
95643_at	0.999885	–0.4	–0.3	Cluster Incl AW050287:WD repeat domain 6, Wdr6
96587_at	0.998696	–0.4	–0.4	Cluster Incl D87900:Mus musculus mRNA for ARF3
160379_at	0.999392	–0.4	0	Cluster Incl L00919:Erythrocyte protein band 4.1
97181_f_at	0.999857	–0.4	0	Cluster Incl M10062:Mouse IgE-binding factor mRNA
101578_f_at	0.999885	–0.4	0.2	Cluster Incl M12481:Actin, beta, cytoplasmic
160580_at	0.998774	–0.4	0.1	Cluster Incl U04299:BALB/c mannosyl-oligosaccharide alpha-1,2-mannosidase
103033_at	0.998336	–0.4	0.2	Cluster Incl X06454:sex-limited protein Slp(w7) alpha-gamma chain
93728_at	0.99978	–0.4	0.2	Cluster Incl X62940:Transforming growth factor beta 1 induced transcript 4
103899_at	0.998613	–0.3	0	Cluster Incl AA690863:Expressed sequence AU040868
104415_at	0.999795	–0.3	0.2	Cluster Incl AA833293:RIKEN cDNA 3110052D19 gene
93151_at	0.999963	–0.3	0	Cluster Incl AB008893:Mus musculus mRNA for N-copine
93910_at	0.999946	–0.3	0	Cluster Incl AB023027:Mus musculus mCaMK1-beta2
99985_at	0.99943	–0.3	0	Cluster Incl AB027565:TXNRD1 mRNA for thioredoxin reductase 1
103784_at	0.999159	–0.3	–0.3	Cluster Incl AI550305:Expressed sequence AA407055
104320_at	1	–0.3	0.2	Cluster Incl AI841777:EST Similar to pyridoxal kinase
92806_at	0.998233	–0.3	0.1	Cluster Incl AI843868:RIKEN cDNA 1110004D19 gene

104549_at	0.998434	–0.3	0.1	Cluster Incl AI844761:expressed sequence AW495846
104030_at	0.999563	–0.3	0	Cluster Incl AI848841:RIKEN cDNA A230106A15 gene
160117_at	0.999467	–0.3	0.2	Cluster Incl AI850638:thyrotroph embryonic factor, Tef
93188_at	0.99943	–0.3	–0.1	Cluster Incl AJ243964:Mus musculus mRNA for dickkopf-3 (dkk-3 gene)
95021_at	0.999104	–0.3	0	Cluster Incl AW124028:Mus musculus, clone IMAGE:4502890, mRNA
101191_at	0.99943	–0.3	0.2	Cluster Incl D85037:Mus musculus mRNA for Doc2beta
93907_f_at	0.997888	–0.3	0	Cluster Incl M17551:MIA14 full-length intracisternal A-particle gag protein gene
94516_f_at	0.999809	–0.3	0.4	Cluster Incl M55181:Preproenkephalin 2
97520_s_at	0.999963	–0.3	0.1	Cluster Incl X83569:Neuronatin

*P values of 0 were < 0.000001

*Genes in red were significantly upregulated by mCREB ($P < 0.01$)

*genes represented more then once were identified multiple times on the array

Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. P-value: the corresponding P-value for the comparison of experimental values vs. controls for each gene. Log_2 ratio: the log_2 ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

SUPPLEMENTARY TABLE 3

GENES UPREGULATED BY CREB AFTER 8 WEEKS OVEREXPRESSION VS.CONTROLS AND THE EFFECT OF CREB AFTER 2 WEEKS (data for Fig. 1c)

AFFY ID	*P*-value	log_2 ratio 8 wk CREB/ control	log_2 ratio 2 wk CREB/ control	Gene
98857_at	0.000205	3.4	0.6	Cluster Incl U29086:Atonal homolog 2 (Drosophila)
93224_at	0.006442	2.5	0	Cluster Incl M31649: T-cell receptor rearranged alpha-chain V-J-C
102700_at	0.000001	1.8	0.4	Cluster Incl U49251:T-box brain gene 1
96055_at	0	1.8	0.8	Cluster Incl X59520:Cholecystokinin
92200_at	0.000133	1.7	0.5	Cluster Incl AB010149:PACAP ligand precursor
98280_at	0.003166	1.7	-0.1	Cluster Incl AB021228:membrane-type-3 matrix metalloproteinase
93294_at	0	1.7	0.5	Cluster Incl M70642:Fibroblast inducible secreted protein
102727_at	0.000001	1.7	0.5	Cluster Incl X55573:Brain derived neurotrophic factor
93370_at	0.000025	1.6	0.7	Cluster Incl AW046243:EST
93479_at	0.000004	1.6	0.4	Cluster Incl AW122413:EST
98808_at	0.000236	1.6	0.1	Cluster Incl D83507:Neurogenic differentiation 2
93654_at	0.000133	1.2	-0.4	Cluster Incl U66201:Fibroblast growth factor 12
97208_at	0.003748	1.1	0.2	Cluster Incl AB020983:Ash2l mRNA
104592_i_at	0.000002	1.1	0.4	Cluster Incl AI595996:myocyte enhancer factor 2C,Mef2c
92346_at	0.000001	1.1	0.1	Cluster Incl X05640:Neurofilament, medium polypeptide
100507_at	0.000005	1.1	0.6	Cluster Incl Y09257:M.musculus mRNA for NOV protein
99623_s_at	0	1	0.3	Cluster Incl D78265:Mus musculus mRNA for pancortin-4
101883_s_at	0.000009	1	-0.1	Cluster Incl L22977:Mouse A12 mRNA, complete cds
96258_at	0	0.9	0.3	Cluster Incl AI843448:microsomal glutathione S-transferase 3
160901_at	0	0.9	0.6	Cluster Incl V00727:FBJ osteosarcoma oncogene (cFos)
98351_g_at	0.000079	0.8	-0.1	Cluster Incl AF008914:somatostatin receptor type 2 (sst2) gene
103438_at	0.000011	0.8	0.2	Cluster Incl AF096875:type 2 deiodinase mRNA, complete cds
95670_at	0	0.8	0.1	Cluster Incl AI839868:stathmin-like 2
95669_g_at	0.000047	0.8	0.4	Cluster Incl AI840972:stathmin-like 2
95541_at	0.000003	0.8	0.2	Cluster Incl AW125506:Chr 6, Wayne State University 176
92317_at	0.000001	0.8	0	Cluster Incl U29088:HU-antigen D
102715_at	0.000006	0.8	0.1	Cluster Incl X74134:Avian erythroblastic leukemia viral (v-erb-a) 3
93430_at	0.002375	0.7	0.2	Cluster Incl AF000236:Chemokine orphan receptor 1
98350_at	0.000099	0.7	0.1	Cluster Incl AF008914:somatostatin receptor type 2 (sst2) gene,
93421_at	0.000018	0.7	0.4	Cluster Incl AF033655:PFTAIRE protein kinase 1
97357_at	0.000001	0.7	0	Cluster Incl AI426400:myocyte enhancer factor 2C
99494_at	0	0.7	0.3	Cluster Incl AJ001700:Mus musculus mRNA for neuroserpin
100933_at	0.001152	0.7	0.3	Cluster Incl D45208:Mus musculus mRNA for HPC-1/syntaxin
94100_s_at	0.000357	0.6	0.1	Cluster Incl AF011543:capacitative calcium entry channel Trp4
95337_at	0.00224	0.6	0.2	Cluster Incl AF057367:male-specific histocompatibility antigen
H104179_at	0.009235	0.6	-0.6	Cluster Incl AI788669:expressed sequence AI788669
97909_at	0	0.6	0.2	Cluster Incl AI838080:leukemia-associated gene, Lag (stathmin)
96709_at	0	0.6	0.3	Cluster Incl AI839839:Similar to chromosome 9 reading frame 16
160961_at	0.000063	0.6	0	Cluster Incl AI853347:ESTs, GTPase-activating protein Spa-1
93887_at	0.004188	0.6	0.1	Cluster Incl AI854351:multiple PDZ domain protein, Mpdz
93159_at	0.008345	0.6	0.1	Cluster Incl AW122995:expressed sequence R74640
95701_at	0.000693	0.6	0.1	Cluster Incl AW124069:EST, zinc finger domain
101426_at	0.002667	0.6	0.4	Cluster Incl AW125333:expressed sequence AI848610
92989_f_at	0	0.6	0.1	Cluster Incl D86214:Ca2+ dependent activator protein for secretion
93721_at	0.000177	0.6	0	Cluster Incl L12367:adenylyl cyclase-associated protein (CAP) Mrna
104590_at	0	0.6	0.3	Cluster Incl L13171:Myocyte enhancer factor 2C
104591_g_at	0.000001	0.6	0.2	Cluster Incl L13171:Myocyte enhancer factor 2C
99442_at	0.000382	0.6	0.1	Cluster Incl L34214:glucocorticoid regulated endocrine protein 18
92908_at	0.000002	0.6	0.1	Cluster Incl L36829:alphaA-crystallin-binding protein I
94833_at	0.000177	0.6	0.1	Cluster Incl M91380:Follistatin-like
92938_at	0.000015	0.6	-0.2	Cluster Incl X61430:GABA-A receptor alpha 1 subunit
96269_at	0.000107	0.5	0.3	Cluster Incl AA716963:similar to IPP isomerase
104743_at	0.00005	0.5	0	Cluster Incl AB022100:mRNA for T-cadherin, complete cds
93411_at	0.000007	0.5	0.2	Cluster Incl AI152789:EST
92526_f_at	0.000739	0.5	0	Cluster Incl AW122114:EST
100571_at	0.000027	0.5	0.1	Cluster Incl AW123934:lysosomal-associated protein 4B

92618_at	0.001991	0.5	-0.2	Cluster Incl AW125253:small EDRK-rich factor 2, Serf2
94445_at	0.00057	0.5	0.2	Cluster Incl AW125273:expressed sequence AI115446
102808_at	0.000107	0.5	0.3	Cluster Incl L48687:Sodium channel, voltage-gated, type I, beta
92635_at	0.000841	0.5	0	Cluster Incl M13444:Mouse alpha-tubulin isotype M-alpha-4 mRNA
95419_at	0.000002	0.5	0.2	Cluster Incl M29260:histone 1-0 gene, 5 end, and promoter region
98967_at	0.000037	0.5	-0.2	Cluster Incl U04827:brain fatty acid-binding protein (B-FABP) gene
92673_at	0.000271	0.5	-0.2	Cluster Incl U58886:endophilin I mRNA, complete cds
101516_at	0.000063	0.5	0.1	Cluster Incl U60473:CD59 antigen
103067_at	0.000357	0.5	-0.4	Cluster Incl Z48587:M.musculus ral-A mRNA
104444_at	0.00001	0.4	-0.3	Cluster Incl AA689927:EST
97770_s_at	0.000002	0.4	0	Cluster Incl AA733372:Chr 6, Wayne State University 176
92546_r_at	0.000001	0.4	0.7	Cluster Incl AB006361:mRNA for prostaglandin D synthetase
93316_at	0.001991	0.4	-0.1	Cluster Incl AB017026:oxysterol-binding protein, complete cds
98554_at	0.000693	0.4	0.2	Cluster Incl AB033922:Ndr1 related protein Ndr3, complete cds
99602_at	0.000955	0.4	0.5	Cluster Incl AF064088:transcription factor GIF mRNA, complete cds
99603_g_at	0.001304	0.4	0.3	Cluster Incl AF064088:transcription factor GIF mRNA, complete cds
160170_at	0.000955	0.4	0.2	Cluster Incl AF069708:SCG10-like-protein (Sclip) mRNA, complete
100946_at	0.000047	0.4	-0.2	Cluster Incl AF109906:MHC class III region RD gene, partial cds
96650_at	0.000437	0.4	-0.1	Cluster Incl AI837724:AU RNA binding/enoyl-coenzyme A hydratase
97356_at	0.00029	0.4	0.1	Cluster Incl AI839653:EST
100628_at	0.000133	0.4	0.2	Cluster Incl AI840263:NADH dehydrogenase (ubiquinone) 1,
160708_at	0.000739	0.4	0.1	Cluster Incl AI840446:schwannomin interacting protein 1, Schip1
160196_at	0.000177	0.4	0	Cluster Incl AI843662:stromal membrane-associated protein
93560_at	0.000143	0.4	0	Cluster Incl AI845882:acylphosphatase 1, erythrocyte (common)
97458_at	0.000191	0.4	-0.5	Cluster Incl AI845935:guanine nucleotide binding protein β 1
103235_at	0.000054	0.4	0.4	Cluster Incl AI848386:neuropeptide Y (putative)
92426_at	0.00004	0.4	0.1	Cluster Incl AI877157:uc54h09.r1 Mus musculus cDNA, 5 end
102145_f_at	0.000955	0.4	0	Cluster Incl AW046732:estrogen related receptor, alpha, Esrra
103955_at	0.001474	0.4	-0.1	Cluster Incl AW050325:crystallin, lamda 1,Cryl1
96353_at	0.001017	0.4	0.5	Cluster Incl AW125346:EST
102920_at	0.000841	0.4	0.4	Cluster Incl AW215585:EST
98059_s_at	0.000955	0.4	0.3	Cluster Incl D49733:Lamin A
94334_f_at	0.000006	0.4	0.2	Cluster Incl L27220:neuronal intermediate filament protein
101518_at	0.002991	0.4	0.4	Cluster Incl U38981:Mus musculus uterine mRNA, complete cds
100026_at	0.001876	0.4	0.1	Cluster Incl U42443:Mus musculus MECA39 mRNA, complete cds
102704_at	0.000012	0.4	0.1	Cluster Incl U88623:Aquaporin 4
95436_at	0.002825	0.4	0.3	Cluster Incl X51468:Somatostatin
160181_at	0.001017	0.4	0.2	Cluster Incl X95818:Synaptophysin
94276_at	0.001226	0.3	-0.1	Cluster Incl AF064635:putative steroid dehydrogenase (KIK-I)
93013_at	0.000047	0.3	0.3	Cluster Incl AF077861:Inhibitor of DNA binding 2
95696_at	0.000467	0.3	0	Cluster Incl AI840882:thioredoxin-like 2
100539_at	0.002375	0.3	0.2	Cluster Incl AI841279: brain acyl-CoA hydrolase
93485_at	0.001664	0.3	0	Cluster Incl AI844911:EST
99166_at	0.000649	0.3	0.3	Cluster Incl AI845963:EST
94019_at	0.001082	0.3	0	Cluster Incl AI852534:basic leucine zipper and W2 domains 1
99618_at	0.000004	0.3	0.3	Cluster Incl AI853523:EST
161436_s_at	0.001474	0.3	0.1	Cluster Incl AV345565:adenosine deaminase, RNA-specific, B1
160462_f_at	0.000029	0.3	0.2	Cluster Incl AW050256:tubulin, beta 3
93667_at	0.000608	0.3	0.2	Cluster Incl AW120511:F-box and WD-40 domain protein 7
101047_at	0.000739	0.3	0.1	Cluster Incl AW123697:EST
95673_s_at	0.000017	0.3	0.2	Cluster Incl AW124113:brain abundant, membrane attached signal 1
160376_at	0.000034	0.3	0.1	Cluster Incl AW125508: EST
101198_at	0.000143	0.3	0.3	Cluster Incl D38614:921-S mRNA for presynaptic protein, complete
160610_at	0.001876	0.3	0.1	Cluster Incl D86916:Mus musculus mRNA for CNR1, complete cds
102321_at	0.002375	0.3	0.1	Cluster Incl M93422:Adenylate cyclase 6
99048_g_at	0.002112	0.3	0	Cluster Incl U81317:Myelin-associated oligodendrocytic basic prot

*P values of 0 were < 0.000001

*Genes in red were significantly upregulated by CREB after 2 wks ($P < 0.01$)

*genes represented more then once were identified multiple times on the array

Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. P-value: the corresponding P-value for the comparison of experimental values vs. controls for each gene. Log_2 ratio: the log_2 ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

SUPPLEMENTARY TABLE 4

GENES UPREGULATED BY CREB AFTER 2 WEEKS OVEREXPRESSION VS.CONTROLS AND THE EFFECT OF CREB AFTER 8 WEEKS (data for Fig. 1d)

AFFY ID	*P*-value	log_2 ratio 2 wk CREB/ control	log_2 ratio 8 wk CREB/ control	Gene
96055_at	0.000001	0.8	1.8	Cluster Incl X59520:Cholecystokinin
93569_f_at	0.000018	0.8	–0.1	Cluster Incl AI853444:RIKEN cDNA 2610042L04 gene
93370_at	0.000115	0.7	1.6	Cluster Incl AW046243:EST
100507_at	0.000499	0.6	1.1	Cluster Incl Y09257:M.musculus mRNA for NOV protein
160901_at	0.000002	0.6	0.9	Cluster Incl V00727:FBJ osteosarcoma oncogene
101930_at	0.000001	0.6	0.1	Cluster Incl Y07688:M.musculus mRNA for NfiX1-protein
98439_at	0.003544	0.6	0	Cluster Incl AW049356:RIKEN cDNA 2610318I15 gene, protein kinase
102727_at	0.00001	0.5	1.7	Cluster Incl X55573:Brain derived neurotrophic factor
92200_at	0.000311	0.5	1.7	Cluster Incl AB010149:Mus musculus gene for PACAP ligand precursor
96353_at	0.000027	0.5	0.4	Cluster Incl AW125346:RIKEN cDNA 1110021D01 gene
98938_at	0.000841	0.5	0.2	Cluster Incl AI852184:EST highly similar to HIV-1 Tat interacting protein
161057_at	0.00029	0.5	–0.2	Cluster Incl AI662504: RIKEN cDNA 2900086B20 gene
93568_i_at	0.000148	0.5	–0.3	Cluster Incl AI853444:RIKEN cDNA 2610042L04 gene
102700_at	0.000037	0.4	1.8	Cluster Incl U49251:T-box brain gene 1
104592_i_at	0.001537	0.4	1.1	Cluster Incl AI595996:myocyte enhancer factor 2C
95669_g_at	0.001876	0.4	0.8	Cluster Incl AI840972:stathmin-like 2
101426_at	0.00224	0.4	0.6	Cluster Incl AW125333:expressed sequence AI848610
95733_at	0.001387	0.4	0.4	Cluster Incl AI838274:solute carrier family 29, member 1
96801_at	0.001017	0.4	0.1	Cluster Incl AJ010108:cytosolic adenylate kinase
94302_at	0.00029	0.4	0	Cluster Incl AF013099:multiubiquitin-chain-binding protein (Mcb1)
104312_at	0.000382	0.4	0	Cluster Incl AW123271:RIKEN cDNA 1110013B16 gene
99623_s_at	0.001082	0.3	1	Cluster Incl D78265:Mus musculus mRNA for pancortin-4
96258_at	0.000333	0.3	0.9	Cluster Incl AI843448:microsomal glutathione S-transferase 3
92995_at	0.000382	0.3	0.8	Cluster Incl D21165:neural visinin-like Ca2+-binding protein type 1
100933_at	0.000382	0.3	0.7	Cluster Incl D45208:Mus musculus mRNA for HPC-1/syntaxin
101487_f_at	0.000236	0.3	0.5	Cluster Incl U47737:Mus musculus thymic shared antigen-1 (TSA-1) gene
161666_f_at	0.001566	0.3	0.4	Cluster Incl AV138783:growth arrest and DNA-damage-inducible 45 beta
99603_g_at	0.001876	0.3	0.4	Cluster Incl AF064088:Mus musculus transcription factor GIF
101198_at	0.001304	0.3	0.3	Cluster Incl D38614:Mouse 921-S mRNA for presynaptic protein
102683_at	0.000955	0.3	0.2	Cluster Incl U76009:Zinc transporter 3
95036_at	0.001664	0.3	0.1	Cluster Incl X73985:M.musculus mRNA for calretinin
94789_r_at	0.000034	0.3	0.1	Cluster Incl X04663:Mouse mRNA for beta-tubulin (isotype Mbeta 5)
96919_at	0.000191	0.3	0	Cluster Incl M64298:ATPase-like vacuolar proton channel
100492_at	0.001767	0.3	–0.1	Cluster Incl AW122807:troponin T2, cardiac
103275_at	0.000841	0.3	–0.2	Cluster Incl U13836:vacuolar adenosine triphosphatase subunit Ac116

*P values of 0 were < 0.000001

*Genes in red were significantly upregulated by CREB after 8 wks ($P < 0.01$)

*genes represented more then once were identified multiple times on the array

Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. *P*-value: the corresponding *P*-value for the comparison of experimental values vs. controls for each gene. Log_2 ratio: the log_2 ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

SUPPLEMENTARY TABLE 5

GENES UPREGULATED AFTER 2 WEEKS ΔFOSB VS.CONTROLS AND THE EFFECT AT 1, 4 AND 8 WEEKS (data for Fig. 2a)

AFFY ID	*P*-value	log_2 ratio 1 wk	log_2 ratio 2 wk ΔFosB/controls	log_2 ratio 4 wk	log_2 ratio 8 wk	Genes
92200_at	0.000264	0.3	3.5	–0.1	–0.7	Cluster Incl AB010149:Mus musculus gene for PACAP ligand precursor
92567_at	0.003544	–0.1	3.4	0.1	–1.2	Cluster Incl L02918:Mouse procollagen type V alpha 2 (Col5a-2) mRNA
100507_at	0.00016	0.2	3.1	–0.2	–1.4	Cluster Incl Y09257:M.musculus mRNA for NOV protein
101726_at	0.000049	0.2	2.8	–0.5	–1.9	Cluster Incl AB010281:Mus musculus gene for neuromedin B receptor
102122_f_at	0.004921	–0.2	2.3	0	–1.8	Cluster Incl AI323533:ubiquitin-like 4
101883_s_at	0.000003	0.9	1.6	0.4	–0.7	Cluster Incl L22977:Mouse A12
96055_at	0.000001	0.3	1.5	0.2	–0.9	Cluster Incl X59520:Cholecystokinin
102727_at	0.000001	–0.1	1.4	0.3	–0.6	Cluster Incl X55573:Brain derived neurotrophic factor
99494_at	0.000001	0.4	1.3	–0.4	0	Cluster Incl AJ001700:Mus musculus mRNA for neuroserpin
102700_at	0.000002	0.5	1.3	–0.1	–0.6	Cluster Incl U49251:T-box brain gene 1
92346_at	0.000087	0.1	1.1	–0.4	–0.2	Cluster Incl X05640:Neurofilament, medium polypeptide
103732_at	0.000086	–0.2	1	0	0	Cluster Incl AI850079:sim to PI(4,5) bisphosphate 5-phosphatase, A
160671_at	0.006226	0.3	1	0.3	–0.3	Cluster Incl AW124836:ceroid-lipofuscinosis, neuronal 8, Cln8
104255_at	0.001676	0.3	0.9	0	–0.2	Cluster Incl AA795285: EST similar to hypothetical protein KIAA1695
100946_at	0.000236	–0.2	0.9	0.7	–0.2	Cluster Incl AF109906:MHC class III region RD gene, partial cds; Hsp70
160760_at	0.000198	0.4	0.9	0	–0.1	Cluster Incl L10106:Protein tyrosine phosphatase, receptor type, K
93270_at	0.008401	–0.1	0.8	–0.1	0	Cluster Incl AI839918:RIKEN cDNA 1200014I03 gene
93159_at	0.000103	0.5	0.8	–0.3	0.2	Cluster Incl AW122995:expressed sequence R74640
92989_f_at	0.000005	0.4	0.8	–0.3	0	Cluster Incl D86214:Ca2+ dependent activator protein for secretion
92727_at	0.009235	0	0.8	0.1	0	Cluster Incl L34676:Amyloid beta (A4) precursor protein-binding, A2
93294_at	0.000009	0.6	0.8	–0.2	–0.5	Cluster Incl M70642:Fibroblast inducible secreted protein
97909_at	0	0.1	0.7	–0.1	–0.3	Cluster Incl AI838080:leukemia-associated gene, Lag
92995_at	0.000111	0.1	0.7	–0.1	–0.2	Cluster Incl D21165:neural visinin-like Ca2+-binding protein type 1
99910_at	0.000841	–0.2	0.7	0.1	0.1	Cluster Incl Y14634:proton-gated cation channels modulatory subunit
100986_at	0.000191	0	0.6	0.1	–0.3	Cluster Incl AF055889:Mus musculus LIM protein FHL2 (Fhl2)
104592_i_at	0.001972	0.2	0.6	–0.3	0.3	Cluster Incl AI595996:myocyte enhancer factor 2C
95669_g_at	0.000153	0.4	0.6	–0.2	–0.1	Cluster Incl AI840972:stathmin-like 2, Stmb2
99574_at	0.009259	0.2	0.6	–0.2	0.3	Cluster Incl AI850887:ESTs similar to RN12, Ring finger protein 12
98609_at	0.00266	0.2	0.6	0.1	0	Cluster Incl AJ250723:septin-like protein Sint1 (Sint1 gene)
93479_at	0.003748	0.3	0.6	–0.1	–0.3	Cluster Incl AW122413:EST
99623_s_at	0.000011	0.8	0.6	0.1	–0.3	Cluster Incl D78265:Mus musculus mRNA for pancortin-4
104591_g_at	0.000271	–0.1	0.6	–0.1	0.1	Cluster Incl L13171:Myocyte enhancer factor 2C
94335_r_at	0.009259	–0.1	0.6	0.3	–0.2	Cluster Incl L27220:neuronal intermediate filament protein
103234_at	0.003858	0.1	0.6	0	–0.1	Cluster Incl M35131:Neurofilament, heavy polypeptide
92317_at	0.000253	0.4	0.6	–0.1	0	Cluster Incl U29088:HU-antigen D
102983_at	0.002667	–0.2	0.6	0.1	–0.1	Cluster Incl U58992:MAD homolog 1 (Drosophila)
92807_at	0.000111	–0.1	0.6	–0.3	0.1	Cluster Incl X77585:Thioredoxin
93421_at	0.001128	0.1	0.5	–0.2	–0.3	Cluster Incl AF033655:PFTAIRE protein kinase 1
95670_at	0.000376	0.2	0.5	–0.2	–0.1	Cluster Incl AI839868:stathmin-like 2, Stmb2
97819_at	0.001387	0.1	0.5	–0.1	0.3	Cluster Incl AI843119:glutathione S-transferase omega 1
104358_at	0.000092	–0.1	0.5	0.1	0	Cluster Incl AI853668:RIKEN cDNA 2410008H17 gene
95345_at	0.001017	0.2	0.5	0.5	–0.4	Cluster Incl AJ012160:5T4 oncofetal trophoblast glycoprotein gene
96780_at	0.002195	0.1	0.5	0.3	0.8	Cluster Incl AW208818:RIKEN cDNA 2410022L05 gene
94835_f_at	0.000017	0	0.5	0	0	Cluster Incl M28739:Tubulin, beta 2
93134_at	0.000333	0	0.5	0.1	–0.2	Cluster Incl U62021:Neuronal pentraxin 1
100513_at	0.000333	0	0.4	0.1	0.1	Cluster Incl AF075461:ADP-ribosylation factor-directed GTPase act pro
96258_at	0.001927	0.3	0.4	–0.2	–0.3	Cluster Incl AI843448:microsomal glutathione S-transferase 3, Mgst3
94325_at	0.000308	0.2	0.4	–0.1	–0.2	Cluster Incl AW124932:EST sim to pre-B-cell leukemia trans factor
101501_r_at	0.001927	0	0.4	–0.5	0	Cluster Incl D87973:Imprinted and ancient
94201_at	0.001056	0.6	0.4	–0.1	0.2	Cluster Incl L42339:Mus musculus sodium channel 3 mRNA
161436_s_at	0.001927	0.2	0.3	–0.3	0	Cluster Incl AV345565:adenosine deaminase, RNA-specific, B1
99047_at	0.000208	0.1	0.3	–0.3	0.2	Cluster Incl U81317:Myelin-associated oligodendrocytic basic protein

*P values of 0 were < 0.000001

*genes in red were significantly downregulated by ΔFosB at 8 weeks ($P < 0.01$)

*genes represented more then once were identified multiple times on the array

Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. *P*-value: the corresponding *P*-value for the comparison of experimental values vs. controls for each gene. Log_2 ratio: the log_2 ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

SUPPLEMENTARY TABLE 6

GENES UPREGULATED AFTER 8 WEEKS ΔFOSB VS.CONTROLS AND THE EFFECT AT 1, 2 AND 4 WEEKS (data for Fig. 2b)

AFFY ID	*P*-value	$\log_2$ ratio 1 wk ΔFosB/controls	$\log_2$ ratio 2 wk	$\log_2$ ratio 4 wk	$\log_2$ ratio 8 wk	Genes
93912_at	0.000006	–1.4	–0.2	0.6	3.5	Cluster Incl AW047616:HLA-B associated transcript 3 (BAT3)
100369_at	0.00001	–1.4	–0.1	0.1	3.1	Cluster Incl AB035174:ST6GalNAc VI
96559_at	0.005207	–0.8	–0.1	0.6	2.9	Cluster Incl AI607745:DNA J protein SB73
104685_g_at	0	–3.5	–0.2	0.8	2.8	Cluster Incl AI847120:Glutamate receptor NMDA ionotropic (zeta 1)
99401_at	0.001017	–0.4	–0.5	0.1	2.6	Cluster Incl Y10725:M.musculus mRNA for protein kinase KIS
102620_at	0.000003	–2.3	–0.3	0.6	2.3	Cluster Incl AF088983:heat shock protein hsp40-3 mRNA
96980_at	0.005207	0.5	–0.8	0.5	2.2	Cluster Incl U34303:nonmuscle myosin heavy chain IIB gene
100683_r_at	0.005494	0.5	–2.3	0.5	2	Cluster Incl U62386:immunoglobulin heavy and light chain variable
100619_r_at	0.00971	–0.3	–0.5	0	1.8	Cluster Incl AA062013:solute carrier family 25 member 5
92910_at	0.00004	–1.3	0.2	0.5	1.5	Cluster Incl D63644:Arnt2 (AhR receptor nuclear translocator)
96587_at	0	–1	–0.4	0.7	1.5	Cluster Incl D87900:Mus musculus mRNA for ARF3, complete cds
92516_at	0.001474	0	–0.2	0.1	1.4	Cluster Incl AF074926:heparan sulfate N-deacetylase/N-sulfotrans 1
101308_at	0.004188	–0.8	–0.6	0.4	1.4	Cluster Incl M64228:Potassium voltage gated channel, Shab-related
98380_at	0.001017	–1.4	–1.1	0.7	1.4	Cluster Incl U04294:Long (electocardiographic) QT syndrome 2
160206_at	0.000841	–0.9	0	0.3	1.2	Cluster Incl AI663783:cleavage and polyadenylation specific factor 4
94771_at	0.003544	–0.2	–0.3	0	0.9	Cluster Incl AA178600:Ras association (RalGDS/AF-6) domain 2
160871_at	0.00004	–0.3	–0.3	0.2	0.9	Cluster Incl AB023656:Mus musculus mRNA for KIF1B-beta
96188_at	0.000034	–1.1	–0.4	0.1	0.9	Cluster Incl AF052506:RNA-specific adenosine deaminase
104686_at	0	–1	–0.3	0.2	0.9	Cluster Incl D10028:Glutamate receptor, ionotropic, NMDA1 (zeta 1)
98511_at	0.000004	–0.2	–0.8	0	0.9	Cluster Incl L17076:HnRNP-associated with lethal yellow
AFFX-PyruCarb	0.001846	–0.3	–0.4	0.1	0.9	L09192 Mus musculus pyruvate carboxylase mRNA, complete cds
104168_at	0.000063	–0.5	0.1	0.3	0.8	Cluster Incl AA791742:EST
97560_at	0.000001	–0.6	–0.2	0	0.8	Cluster Incl AF037437:prosaposin gene, promoter and exon 1
95888_at	0.004673	–0.1	–0.9	0	0.8	Cluster Incl AI507266:lymphoid nuclear protein related to AF4-like
92899_at	0.000124	0.2	–0.8	0.1	0.7	Cluster Incl D42051:Glutamate Decarboxylase
98361_at	0.001876	–0.1	–0.4	0.4	0.7	Cluster Incl D82935:PACAP receptor
98827_i_at	0.000346	0	0	0.3	0.7	Cluster Incl X61435:M.musculus mRNA for kinesin heavy chain
93632_g_at	0.000099	–0.3	–0.4	0.1	0.7	Cluster Incl X95761:M.musculus mRNA for new-Rhobin
102221_at	0.000236	–0.6	0	0.4	0.6	Cluster Incl AJ002306:Mus musculus mRNA for synaptogyrin 1b
94195_r_at	0.000063	–0.4	–0.6	0.3	0.6	Cluster Incl AJ225122:hyperpolarization-activated cation channel
102852_at	0.000068	0	0.1	0	0.6	Cluster Incl M31131:Cadherin 2
97724_at	0.000009	–0.5	–0.5	0.2	0.5	Cluster Incl AB003433:Cryptochrome 2 (photolyase-like)
100364_at	0.000236	–0.8	–0.4	0.1	0.5	Cluster Incl AB026803:Mus musculus mRNA for synaptotagmin VI,
92426_at	0.001566	–0.3	0.7	0	0.5	Cluster Incl AI877157:transmembrane 4 superfamily member 9
101179_at	0.000143	–0.2	–0.5	0.1	0.5	Cluster Incl D50494:D-E-A-D box polypeptide 6
101829_at	0.000143	–0.9	–0.6	0.4	0.5	Cluster Incl J04192:muscarinic acetylcholine receptor M1
101364_at	0.000003	–1	–0.3	0.2	0.5	Cluster Incl Y13344:Mus musculus Adora2a gene, exon 1
99672_at	0.000054	–0.3	–0.4	0.1	0.5	Cluster Incl Z49916:M.musculus mRNA for CLCN4
101757_at	0.000408	–0.6	0	0.2	0.4	Cluster Incl AF015881:nuclear factor erythroid-related factor 1 (Nrf1)
101363_at	0.000001	–0.6	–0.6	0.2	0.4	Cluster Incl AI644801:adenosine A2a receptor Adora2a
99503_at	0.002112	0.1	–0.3	0.2	0.4	Cluster Incl AW045204:EST
95458_s_at	0.00057	0.1	–0.2	0	0.4	Cluster Incl AW121960:EST
95134_at	0.000739	–0.1	–0.2	0.3	0.4	Cluster Incl AW124483:hypothetical protein STRAIT11499
104248_at	0.000408	0	–0.2	0	0.4	Cluster Incl AW227650:TRAP-complex gamma subunit
99883_g_at	0.001152	0.2	–0.5	0	0.4	Cluster Incl L07921:Iduronate 2-sulfatase
92631_f_at	0.000245	0.1	0.3	0	0.4	Cluster Incl M19380:Calmodulin 3
99024_at	0.001767	0.1	–0.2	0	0.4	Cluster Incl U32395:Max-interacting transcriptional repressor (Mad4)
93660_at	0.000177	–0.2	–0.3	1.1	0.4	Cluster Incl X87142:Calcium/calmodulin-dependent protein kinase II
92821_at	0.000649	–0.3	–0.4	0	0.3	Cluster Incl AF079565:ubiquitin-specific protease UBP41 (Ubp41)
104059_at	0.000079	–0.5	–0.3	0.1	0.3	Cluster Incl AI851751:EST
100388_at	0.000236	–0.6	0.1	0.3	0.3	Cluster Incl L34216:G protein alpha-o subunit gene
101732_at	0.000311	0	–0.7	0.1	0.3	Cluster Incl M12039:DNA homologous to the Drosophila per locus
97760_at	0.00022	0.1	0	0	0.3	Cluster Incl M21041:Microtubule-associated protein 2
93659_at	0.000107	–2.5	0.3	0.4	0.3	Cluster Incl X14836:Calcium/calmodulin-dependent protein kinase II

99511_at	0.000074	–0.3	–0.3	0.1	0.3	Cluster Incl X53532:Protein kinase C, beta
92947_s_at	0.000009	–0.1	0.1	0	0.3	Cluster Incl X57498:Glutamate receptor, ionotropic, AMPA2
93219_at	0.001767	0.5	–0.6	0	0.3	Cluster Incl Y17343:protein-tyrosine-phosphatase IF2P

*P values of 0 were < 0.000001

*genes in red were significantly downregulated by ΔFosB at 2 weeks ($P < 0.01$)

*genes represented more then once were identified multiple times on the array

Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. P-value: the corresponding P-value for the comparison of experimental values vs. controls for each gene. Log_2 ratio: the log_2 ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

SUPPLEMENTARY TABLE 7

GENES UPREGULATED AFTER 2 WEEKS ΔFOSB VS.CONTROLS AND THE EFFECT OF ΔCJUN (data for Fig. 3a)

AFFY ID	*P*-value	$\log_2$ ratio 2wk ΔFosB/ Controls	$\log_2$ ratio ΔcJun/ Controls	Genes
92200_at	0.000264	3.5	0	Cluster Incl AB010149:Mus musculus gene for PACAP ligand precursor
92567_at	0.003544	3.4	0	Cluster Incl L02918:Mouse procollagen type V alpha 2 (Col5a-2) mRNA
100507_at	0.00016	3.1	1	Cluster Incl Y09257:M.musculus mRNA for NOV protein
101726_at	0.000049	2.8	1	Cluster Incl AB010281:Mus musculus gene for neuromedin B receptor
102122_f_at	0.004921	2.3	–0.5	Cluster Incl AI323533:ubiquitin-like 4
101883_s_at	0.000003	1.6	–0.5	Cluster Incl L22977:Mouse A12
96055_at	0.000001	1.5	1.2	Cluster Incl X59520:Cholecystokinin
102727_at	0.000001	1.4	0.6	Cluster Incl X55573:Brain derived neurotrophic factor
99494_at	0.000001	1.3	0.6	Cluster Incl AJ001700:Mus musculus mRNA for neuroserpin
102700_at	0.000002	1.3	1.3	Cluster Incl U49251:T-box brain gene 1
92346_at	0.000087	1.1	0.2	Cluster Incl X05640:Neurofilament, medium polypeptide
103732_at	0.000086	1	–0.3	Cluster Incl AI850079:sim to PI(4,5) bisphosphate 5-phosphatase, A
160671_at	0.006226	1	0.9	Cluster Incl AW124836:ceroid-lipofuscinosis, neuronal 8, Cln8
104255_at	0.001676	0.9	0.2	Cluster Incl AA795285: EST similar to hypothetical protein KIAA1695
100946_at	0.000236	0.9	0.1	Cluster Incl AF109906:MHC class III region RD gene, partial cds; Hsp70
160760_at	0.000198	0.9	0.6	Cluster Incl L10106:Protein tyrosine phosphatase, receptor type, K
93270_at	0.008401	0.8	0	Cluster Incl AI839918:RIKEN cDNA 1200014I03 gene
93159_at	0.000103	0.8	–0.1	Cluster Incl AW122995:expressed sequence R74640
92989_f_at	0.000005	0.8	0.2	Cluster Incl D86214:Ca2+ dependent activator protein for secretion
92727_at	0.009235	0.8	0.1	Cluster Incl L34676:Amyloid beta (A4) precursor protein-binding, A2
93294_at	0.000009	0.8	0.6	Cluster Incl M70642:Fibroblast inducible secreted protein
97909_at	0	0.7	0.5	Cluster Incl AI838080:leukemia-associated gene, Lag
92995_at	0.000111	0.7	0.4	Cluster Incl D21165:neural visinin-like Ca2+-binding protein type 1
99910_at	0.000841	0.7	0	Cluster Incl Y14634:proton-gated cation channels modulatory subunit
100986_at	0.000191	0.6	0.2	Cluster Incl AF055889:Mus musculus LIM protein FHL2 (Fhl2)
104592_i_at	0.001972	0.6	0.6	Cluster Incl AI595996:myocyte enhancer factor 2C
95669_g_at	0.000153	0.6	0.3	Cluster Incl AI840972:stathmin-like 2, Stmb2
99574_at	0.009259	0.6	0.1	Cluster Incl AI850887:ESTs similar to RN12, Ring finger protein 12
98609_at	0.00266	0.6	–0.1	Cluster Incl AJ250723:septin-like protein Sint1 (Sint1 gene)
93479_at	0.003748	0.6	0.5	Cluster Incl AW122413:EST
99623_s_at	0.000011	0.6	0.7	Cluster Incl D78265:Mus musculus mRNA for pancortin-4
104591_g_at	0.000271	0.6	0.1	Cluster Incl L13171:Myocyte enhancer factor 2C
94335_r_at	0.009259	0.6	0.3	Cluster Incl L27220:neuronal intermediate filament protein
103234_at	0.003858	0.6	0.2	Cluster Incl M35131:Neurofilament, heavy polypeptide
92317_at	0.000253	0.6	0.3	Cluster Incl U29088:HU-antigen D
102983_at	0.002667	0.6	0.1	Cluster Incl U58992:MAD homolog 1 (Drosophila)
92807_at	0.000111	0.6	0.1	Cluster Incl X77585:Thioredoxin
93421_at	0.001128	0.5	0.5	Cluster Incl AF033655:PFTAIRE protein kinase 1
95670_at	0.000376	0.5	0.3	Cluster Incl AI839868:stathmin-like 2, Stmb2
97819_at	0.001387	0.5	0	Cluster Incl AI843119:glutathione S-transferase omega 1
104358_at	0.000092	0.5	–0.1	Cluster Incl AI853668:RIKEN cDNA 2410008H17 gene
95345_at	0.001017	0.5	0	Cluster Incl AJ012160:5T4 oncofetal trophoblast glycoprotein gene
96780_at	0.002195	0.5	1.2	Cluster Incl AW208818:RIKEN cDNA 2410022L05 gene
94835_f_at	0.000017	0.5	0.2	Cluster Incl M28739:Tubulin, beta 2
93134_at	0.000333	0.5	0.5	Cluster Incl U62021:Neuronal pentraxin 1
100513_at	0.000333	0.4	–0.1	Cluster Incl AF075461:ADP-ribosylation factor-directed GTPase act pro
96258_at	0.001927	0.4	0.4	Cluster Incl AI843448:microsomal glutathione S-transferase 3, Mgst3
94325_at	0.000308	0.4	0.2	Cluster Incl AW124932:EST sim to pre-B-cell leukemia trans factor
101501_r_at	0.001927	0.4	0.1	Cluster Incl D87973:Imprinted and ancient
94201_at	0.001056	0.4	0.3	Cluster Incl L42339:Mus musculus sodium channel 3 mRNA
161436_s_at	0.001927	0.3	0.3	Cluster Incl AV345565:adenosine deaminase, RNA-specific, B1
99047_at	0.000208	0.3	–0.1	Cluster Incl U81317:Myelin-associated oligodendrocytic basic protein

*P values of 0 were < 0.000001

*genes in red were significantly upregulated by ΔcJun at 8 weeks ($P < 0.01$)

*genes represented more then once were identified multiple times on the array

Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. *P*-value: the corresponding *P*-value for the comparison of experimental values vs. controls for each gene. $\log_2$ ratio: the $\log_2$ ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

SUPPLEMENTARY TABLE 8

GENES UPREGULATED AFTER 8 WEEKS ΔFOSB VS.CONTROLS AND THE EFFECT OF ΔCJUN

AFFY ID	*P*-value 8 wk ΔFosB/ controls	$\log_2$ ratio ΔcJun/ controls	$\log_2$ ratio	Genes
93912_at	0.000006	3.5	–1.8	Cluster Incl AW047616:HLA-B associated transcript 3 (BAT3)
100369_at	0.00001	3.1	0.1	Cluster Incl AB035174:ST6GalNAc VI
96559_at	0.005207	2.9	–1.2	Cluster Incl AI607745:DNA J protein SB73
104685_g_at	0	2.8	–2.1	Cluster Incl AI847120:Glutamate receptor NMDA ionotropic (zeta 1)
99401_at	0.001017	2.6	0.1	Cluster Incl Y10725:M.musculus mRNA for protein kinase KIS
102620_at	0.000003	2.3	–0.1	Cluster Incl AF088983:heat shock protein hsp40-3 mRNA
96980_at	0.005207	2.2	0.1	Cluster Incl U34303:nonmuscle myosin heavy chain IIB
100683_r_at	0.005494	2	–1.6	Cluster Incl U62386:immunoglobulin heavy and light chain variable
100619_r_at	0.00971	1.8	–0.1	Cluster Incl AA062013:solute carrier family 25 member 5
92910_at	0.00004	1.5	0.3	Cluster Incl D63644:Arnt2 (AhR receptor nuclear translocator)
96587_at	0	1.5	–0.5	Cluster Incl D87900:Mus musculus mRNA for ARF3, complete cds
92516_at	0.001474	1.4	0	Cluster Incl AF074926:heparan sulfate N-deacetylase/N-sulfotrans 1
101308_at	0.004188	1.4	–0.3	Cluster Incl M64228:Potassium voltage gated channel, Shab-related
98380_at	0.001017	1.4	–1	Cluster Incl U04294:Long (electocardiographic) QT syndrome 2
160206_at	0.000841	1.2	–1.3	Cluster Incl AI663783:cleavage and polyadenylation specific factor 4
94771_at	0.003544	0.9	0.1	Cluster Incl AA178600:Ras association (RalGDS/AF-6) domain 2
160871_at	0.00004	0.9	–0.7	Cluster Incl AB023656:Mus musculus mRNA for KIF1B-beta
96188_at	0.000034	0.9	–0.1	Cluster Incl AF052506:RNA-specific adenosine deaminase
104686_at	0	0.9	–0.2	Cluster Incl D10028:Glutamate receptor, ionotropic, NMDA1 (zeta 1)
98511_at	0.000004	0.9	0.4	Cluster Incl L17076:HnRNP-associated with lethal yellow
AFFX-PyruCarb	0.001846	0.9	–1.2	L09192 Mus musculus pyruvate carboxylase mRNA, complete cds
104168_at	0.000063	0.8	–0.1	Cluster Incl AA791742:EST
97560_at	0.000001	0.8	–0.5	Cluster Incl AF037437:prosaposin gene, promoter and exon 1
95888_at	0.004673	0.8	0.8	Cluster Incl AI507266:lymphoid nuclear protein related to AF4-like
92899_at	0.000124	0.7	–0.2	Cluster Incl D42051:Glutamate Decarboxylase
98361_at	0.001876	0.7	–1.3	Cluster Incl D82935:PACAP receptor
98827_i_at	0.000346	0.7	2.9	Cluster Incl X61435:M.musculus mRNA for kinesin heavy chain
93632_g_at	0.000099	0.7	–0.3	Cluster Incl X95761:M.musculus mRNA for new-Rhobin
102221_at	0.000236	0.6	–0.7	Cluster Incl AJ002306:Mus musculus mRNA for synaptogyrin 1b
94195_r_at	0.000063	0.6	–0.2	Cluster Incl AJ225122:hyperpolarization-activated cation channel
102852_at	0.000068	0.6	0.2	Cluster Incl M31131:Cadherin 2
97724_at	0.000009	0.5	–0.2	Cluster Incl AB003433:Cryptochrome 2 (photolyase-like)
100364_at	0.000236	0.5	–1	Cluster Incl AB026803:Mus musculus mRNA for synaptotagmin VI,
92426_at	0.001566	0.5	–1.5	Cluster Incl AI877157:transmembrane 4 superfamily member 9
101179_at	0.000143	0.5	0.4	Cluster Incl D50494:D-E-A-D box polypeptide 6
101829_at	0.000143	0.5	–0.1	Cluster Incl J04192:muscarinic acetylcholine receptor M1
101364_at	0.000003	0.5	–0.4	Cluster Incl Y13344:Mus musculus Adora2a gene, exon 1
99672_at	0.000054	0.5	0.2	Cluster Incl Z49916:M.musculus mRNA for CLCN4
101757_at	0.000408	0.4	0.2	Cluster Incl AF015881:nuclear factor erythroid-related factor 1 (Nrf1)
101363_at	0.000001	0.4	–0.2	Cluster Incl AI644801:adenosine A2a receptor Adora2a
99503_at	0.002112	0.4	–0.1	Cluster Incl AW045204:EST
95458_s_at	0.00057	0.4	–0.1	Cluster Incl AW121960:EST
95134_at	0.000739	0.4	0	Cluster Incl AW124483:hypothetical protein STRAIT11499
104248_at	0.000408	0.4	–0.4	Cluster Incl AW227650:TRAP-complex gamma subunit
99883_g_at	0.001152	0.4	0	Cluster Incl L07921:Iduronate 2-sulfatase
92631_f_at	0.000245	0.4	–0.1	Cluster Incl M19380:Calmodulin 3
99024_at	0.001767	0.4	–0.2	Cluster Incl U32395:Max-interacting transcriptional repressor (Mad4)
93660_at	0.000177	0.4	0	Cluster Incl X87142:Calcium/calmodulin-dependent protein kinase II
92821_at	0.000649	0.3	0	Cluster Incl AF079565:ubiquitin-specific protease UBP41 (Ubp41)
104059_at	0.000079	0.3	0.1	Cluster Incl AI851751:EST
100388_at	0.000236	0.3	–0.3	Cluster Incl L34216:G protein alpha-o subunit gene
101732_at	0.000311	0.3	0.4	Cluster Incl M12039:DNA homologous to the Drosophila per locus
97760_at	0.00022	0.3	0	Cluster Incl M21041:Microtubule-associated protein 2
93659_at	0.000107	0.3	–1.9	Cluster Incl X14836:Calcium/calmodulin-dependent protein kinase II
99511_at	0.000074	0.3	–0.2	Cluster Incl X53532:Protein kinase C, beta
92947_s_at	0.000009	0.3	–0.1	Cluster Incl X57498:Glutamate receptor, ionotropic, AMPA2
93219_at	0.001767	0.3	0.3	Cluster Incl Y17343:protein-tyrosine-phosphatase IF2P

*P values of 0 were < 0.000001

*genes in red were significantly downregulated by ΔcJun at 8 weeks ($P < 0.01$)

*genes represented more then once were identified multiple times on the array

Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. *P*-value: the corresponding *P*-value for the comparison of experimental values vs. controls for each gene. $\log_2$ ratio: the $\log_2$ ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

SUPPLEMENTARY TABLE 9

GENES UPREGULATED AFTER 8 WEEKS OF CREB AND THE EFFECT OF 2 AND 8 WKS ΔFOSB AND MCREB (data for Fig. 4a)

AFFY ID	*P*-value	$\log_2$ ratio CREB/ controls	$\log_2$ ratio 2 wk ΔFosB/ controls	$\log_2$ ratio 8 wk ΔFosB/ controls	$\log_2$ ratio mCREB/ controls	Genes
98857_at	0.000205	3.4	2	–0.5	–2	Cluster Incl U29086:Atonal homolog 2 (Drosophila)
93224_at	0.006442	2.5	0.3	1.6	0.4	Cluster Incl M31649 T-cell receptor rearranged alpha-chain
102700_at	0.000001	1.8	1.3	–0.6	–0.7	Cluster Incl U49251:T-box brain gene 1
96055_at	0	1.8	1.5	–0.9	–0.6	Cluster Incl X59520:Cholecystokinin
92200_at	0.000133	1.7	3.5	–0.7	–0.9	Cluster Incl AB010149:PACAP ligand precursor
98280_at	0.003166	1.7	–0.1	1.7	0	Cluster Incl AB021228:membrane-type-3 matrix metalloproteinase
93294_at	0	1.7	0.8	–0.5	0	Cluster Incl M70642:Fibroblast inducible secreted protein
102727_at	0.000001	1.7	1.4	–0.6	–0.9	Cluster Incl X55573:Brain derived neurotrophic factor
93370_at	0.000025	1.6	1.8	–0.1	–1.2	Cluster Incl AW046243:EST
93479_at	0.000004	1.6	0.6	–0.3	–0.9	Cluster Incl AW122413:EST
98808_at	0.000236	1.6	0.1	–0.5	–0.3	Cluster Incl D83507:Neurogenic differentiation 2
93654_at	0.000133	1.2	–0.1	–0.1	0.3	Cluster Incl U66201:Fibroblast growth factor 12
97208_at	0.003748	1.1	–2.6	0.9	–0.4	Cluster Incl AB020983:Ash2l mRNA, similar to Drosophila ash2
104592_i_at	0.000002	1.1	0.6	0.3	0	Cluster Incl AI595996:myocyte enhancer factor 2C,Mef2c
92346_at	0.000001	1.1	1.1	–0.2	–0.5	Cluster Incl X05640:Neurofilament, medium polypeptide
100507_at	0.000005	1.1	3.1	–1.4	–0.5	Cluster Incl Y09257:M.musculus mRNA for NOV protein
99623_s_at	0	1	0.6	–0.3	–0.4	Cluster Incl D78265:Mus musculus mRNA for pancortin-4
101883_s_at	0.000009	1	1.6	–0.7	–0.6	Cluster Incl L22977:Mouse A12 mRNA, complete cds
96258_at	0	0.9	0.4	–0.3	–0.2	Cluster Incl AI843448:microsomal glutathione S-transferase 3
160901_at	0	0.9	1	0.1	–0.6	Cluster Incl V00727:FBJ osteosarcoma oncogene (cFos)
98351_g_at	0.000079	0.8	–0.1	–0.4	0	Cluster Incl AF008914:somatostatin receptor type 2 (sst2) gene
103438_at	0.000011	0.8	0.3	0.1	–0.1	Cluster Incl AF096875:type 2 deiodinase mRNA, complete cds
95670_at	0	0.8	0.5	–0.1	–0.5	Cluster Incl AI839868:stathmin-like 2
95669_g_at	0.000047	0.8	0.6	–0.1	–0.3	Cluster Incl AI840972:stathmin-like 2
95541_at	0.000003	0.8	0.2	0.3	–0.1	Cluster Incl AW125506:Chr 6, Wayne State University 176
92317_at	0.000001	0.8	0.6	0	–0.5	Cluster Incl U29088:HU-antigen D
102715_at	0.000006	0.8	0.5	0.2	–0.5	Cluster Incl X74134:Avian erythroblastic leukemia viral onco 3
93430_at	0.002375	0.7	0	–0.1	–0.2	Cluster Incl AF000236:Chemokine orphan receptor 1
98350_at	0.000099	0.7	0.1	0.3	0.2	Cluster Incl AF008914:somatostatin receptor type 2 (sst2) gene
93421_at	0.000018	0.7	0.5	–0.3	–0.2	Cluster Incl AF033655:PFTAIRE protein kinase 1
97357_at	0.000001	0.7	0.6	–0.2	–0.3	Cluster Incl AI426400:myocyte enhancer factor 2C
99494_at	0	0.7	1.3	0	–0.3	Cluster Incl AJ001700:Mus musculus mRNA for neuroserpin
100933_at	0.001152	0.7	0.6	–0.3	–0.2	Cluster Incl D45208:HPC-1/syntaxin, complete cds
94100_s_at	0.000357	0.6	1.9	0.4	–0.4	Cluster Incl AF011543:calcium entry channel Trp4 mRNA
95337_at	0.00224	0.6	0.4	0.6	–0.2	Cluster Incl AF057367:male-specific histocompatibility antigen
104179_at	0.009235	0.6	–0.6	0.1	–0.5	Cluster Incl AI788669:expressed sequence AI788669
97909_at	0	0.6	0.7	–0.3	–0.4	Cluster Incl AI838080:leukemia-associated gene, Lag (stathmin)
96709_at	0	0.6	0.1	–0.1	–0.3	Cluster Incl AI839839:Similar to chromosome 9 open reading
160961_at	0.000063	0.6	0.4	0.1	–0.3	Cluster Incl AI853347:ESTs, similar to GTPase-activating protein
93887_at	0.004188	0.6	0.1	–0.1	–0.3	Cluster Incl AI854351:multiple PDZ domain protein, Mpdz
93159_at	0.008345	0.6	0.8	0.2	–0.3	Cluster Incl AW122995:expressed sequence R74640
95701_at	0.000693	0.6	1.1	–0.1	–0.4	Cluster Incl AW124069:EST, zinc finger domain
101426_at	0.002667	0.6	0.2	–0.1	–0.4	Cluster Incl AW125333:expressed sequence AI848610
92989_f_at	0	0.6	0.8	0	–0.3	Cluster Incl D86214:Ca2+ dependent activ protein for secretion
93721_at	0.000177	0.6	0	–0.2	0.2	Cluster Incl L12367:adenylyl cyclase-associated protein (CAP)
104590_at	0	0.6	0.2	–0.1	–0.1	Cluster Incl L13171:Myocyte enhancer factor 2C
104591_g_at	0.000001	0.6	0.6	0.1	–0.2	Cluster Incl L13171:Myocyte enhancer factor 2C
99442_at	0.000382	0.6	0	0	–0.3	Cluster Incl L34214:glucocorticoid regulated endocrine protein
92908_at	0.000002	0.6	0.3	0	–0.1	Cluster Incl L36829:alphaA-crystallin-binding protein I
94833_at	0.000177	0.6	–0.3	0	–0.4	Cluster Incl M91380:Follistatin-like
92938_at	0.000015	0.6	0.4	–0.1	–0.1	Cluster Incl X61430:GABA-A receptor alpha 1 subunit
96269_at	0.000107	0.5	0.3	0	–0.1	Cluster Incl AA716963:Isopentenyl-diphosphate delta-isomerase
104743_at	0.00005	0.5	1.8	0.5	0	Cluster Incl AB022100:mRNA for T-cadherin, complete cds
93411_at	0.000007	0.5	0.5	–0.2	–0.6	Cluster Incl AI152789:EST
92526_f_at	0.000739	0.5	0.4	0	–0.2	Cluster Incl AW122114:EST
100571_at	0.000027	0.5	0.2	–0.1	–0.1	Cluster Incl AW123934:lysosomal-associated protein 4B

92618_at	0.001991	0.5	–0.3	–0.2	0	Cluster Incl AW125253:small EDRK-rich factor 2, Serf2
94445_at	0.00057	0.5	–0.1	–0.1	0	Cluster Incl AW125273:expressed sequence AI115446
102808_at	0.000107	0.5	0.6	–0.2	–0.4	Cluster Incl L48687:Sodium channel, voltage-gated, type I, beta
92635_at	0.000841	0.5	0	0.1	–0.1	Cluster Incl M13444:Mouse alpha-tubulin isotype M-alpha-4
95419_at	0.000002	0.5	0.1	0	–0.2	Cluster Incl M29260:Mouse histone 1-0 gene
98967_at	0.000037	0.5	0.1	–0.2	–0.1	Cluster Incl U04827:brain fatty acid-binding protein (B-FABP)
92673_at	0.000271	0.5	0.3	–0.1	–0.1	Cluster Incl U58886:endophilin I mRNA, complete cds
101516_at	0.000063	0.5	0.1	0.1	0.5	Cluster Incl U60473:CD59 antigen
103067_at	0.000357	0.5	0.1	–0.2	–0.2	Cluster Incl Z48587:M.musculus ral-A mRNA
104444_at	0.00001	0.4	–0.4	–0.3	–0.1	Cluster Incl AA689927:EST
97770_s_at	0.000002	0.4	–0.1	0.1	–0.2	Cluster Incl AA733372:Chr 6, Wayne State University 176
92546_r_at	0.000001	0.4	–0.8	0.2	–0.3	Cluster Incl AB006361:mRNA for prostaglandin D synthetase
93316_at	0.001991	0.4	0.1	–0.3	–0.1	Cluster Incl AB017026:oxysterol-binding protein, complete cds
98554_at	0.000693	0.4	0.3	0.1	–0.2	Cluster Incl AB033922:Ndr1 related protein Ndr3, complete cds
99602_at	0.000955	0.4	-0.1	0	–0.2	Cluster Incl AF064088:transcription factor GIF mRNA
99603_g_at	0.001304	0.4	0.2	0.6	–0.1	Cluster Incl AF064088:transcription factor GIF mRNA
160170_at	0.000955	0.4	0	0	–0.1	Cluster Incl AF069708:SCG10-like-protein (Sclip) mRNA
100946_at	0.000047	0.4	0.9	–0.2	0.5	Cluster Incl AF109906:MHC class III region RD gene, partial cds
96650_at	0.000437	0.4	0.8	–0.1	–0.1	Cluster Incl AI837724:AU RNA /enoyl-coenzyme A hydratase
97356_at	0.00029	0.4	0.3	–0.2	–0.2	Cluster Incl AI839653:EST
100628_at	0.000133	0.4	0.2	0	0	Cluster Incl AI840263:NADH dehydrogenase (ubiquinone) 1
160708_at	0.000739	0.4	0.5	–0.2	0	Cluster Incl AI840446:schwannomin interacting protein 1, Schip1
160196_at	0.000177	0.4	0.3	–0.1	–0.2	Cluster Incl AI843662:stromal membrane-associated protein
93560_at	0.000143	0.4	0.2	0	–0.1	Cluster Incl AI845882:acylphosphatase 1, erythrocyte (common)
97458_at	0.000191	0.4	0.4	–0.2	0.2	Cluster Incl AI845935:guanine nucleotide binding protein β 1
103235_at	0.000054	0.4	–0.1	0	0.1	Cluster Incl AI848386:neuropeptide Y (putative)
92426_at	0.00004	0.4	0.7	0.5	–0.2	Cluster Incl AI877157:uc54h09.r1 Mus musculus cDNA, 5 end
102145_f_at	0.000955	0.4	0	–0.1	–0.1	Cluster Incl AW046732:estrogen related receptor, alpha, Esrra
103955_at	0.001474	0.4	0.6	0.3	–0.2	Cluster Incl AW050325:crystallin, lamda 1,Cryl1
96353_at	0.001017	0.4	0.3	–0.8	–0.1	Cluster Incl AW125346:EST
102920_at	0.000841	0.4	–0.3	–0.1	0.1	Cluster Incl AW215585:EST
98059_s_at	0.000955	0.4	–0.2	0	–0.2	Cluster Incl D49733:Lamin A
94334_f_at	0.000006	0.4	0.5	–0.2	–0.3	Cluster Incl L27220: neuronal intermediate filament protein
101518_at	0.002991	0.4	0.3	0	0	Cluster Incl U38981:Mus musculus uterine mRNA, complete cds
100026_at	0.001876	0.4	0.7	0.4	–0.1	Cluster Incl U42443:MECA39 mRNA, complete cds
102704_at	0.000012	0.4	0.3	0.3	–0.2	Cluster Incl U88623:Aquaporin 4
95436_at	0.002825	0.4	0.3	–0.1	0.2	Cluster Incl X51468:Somatostatin
160181_at	0.001017	0.4	0.1	–0.4	–0.3	Cluster Incl X95818:Synaptophysin
94276_at	0.001226	0.3	0.2	0	–0.1	Cluster Incl AF064635:putative steroid dehydrogenase (KIK-I)
93013_at	0.000047	0.3	0.3	0	–0.3	Cluster Incl AF077861:Inhibitor of DNA binding 2
95696_at	0.000467	0.3	0.1	0	0.1	Cluster Incl AI840882:thioredoxin-like 2
100539_at	0.002375	0.3	0.2	0	–0.2	Cluster Incl AI841279: brain acyl-CoA hydrolase
93485_at	0.001664	0.3	–0.2	–0.1	0.1	Cluster Incl AI844911:EST
99166_at	0.000649	0.3	0	0	–0.1	Cluster Incl AI845963:EST
94019_at	0.001082	0.3	0.1	–0.1	–0.1	Cluster Incl AI852534:basic leucine zipper and W2 domains 1
99618_at	0.000004	0.3	0.4	0	0.1	Cluster Incl AI853523:EST
161436_s_at	0.001474	0.3	0.3	0	0	Cluster Incl AV345565:adenosine deaminase, RNA-specific, B1
160462_f_at	0.000029	0.3	0.3	–0.1	–0.1	Cluster Incl AW050256:tubulin, beta 3
93667_at	0.000608	0.3	–0.3	0	–0.2	Cluster Incl AW120511:F-box and WD-40 domain protein 7
101047_at	0.000739	0.3	0.4	0	–0.1	Cluster Incl AW123697:EST
95673_s_at	0.000017	0.3	0.3	–0.1	–0.1	Cluster Incl AW125508: EST
101198_at	0.000143	0.3	0.5	–0.2	–0.3	Cluster Incl D38614:Mouse 921-S mRNA for presynaptic protein,
160610_at	0.001876	0.3	0.2	0.3	–0.1	Cluster Incl D86916:Mus musculus mRNA for CNR1
102321_at	0.002375	0.3	0.4	–0.1	–0.2	Cluster Incl M93422:Adenylate cyclase 6
99048_g_at	0.002112	0.3	0	0.2	0.1	Cluster Incl U81317:Myelin-associated oligodendrocytic basic

*P values of 0 were < 0.000001

*genes in red were significantly upregulated by CREB and ΔFosB at 2 weeks ($P < 0.01$)

*genes represented more then once were identified multiple times on the array

Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. P-value: the corresponding P-value for the comparison of experimental values vs. controls for each gene. Log_2 ratio: the log_2 ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

SUPPLEMENTARY TABLE 10

GENES UPREGULATED AFTER 2 WEEKS ΔFOSB VS.CONTROLS AND THE EFFECT OF CREB, 8 WEEKS ΔFOSB, AND MCREB (data for Fig. 4b)

AFFY ID	*P*-value	$\log_2$ ratio CREB/ Controls	$\log_2$ ratio 2wk ΔFosB/ Controls	$\log_2$ ratio 8wk ΔFosB/ Controls	$\log_2$ ratio mCREB/ Controls	Genes
92200_at	0.000264	1.7	3.5	–0.7	–0.9	Cluster Incl AB010149:PACAP ligand precursor
92567_at	0.003544	–0.1	3.4	–1.2	0.3	Cluster Incl L02918:procollagen type V alpha 2 (Col5a-2) mRNA
100507_at	0.00016	1.1	3.1	–1.4	–0.5	Cluster Incl Y09257:M.musculus mRNA for NOV protein
101726_at	0.000049	0.3	2.8	–1.9	–1	Cluster Incl AB010281:neuromedin B receptor
102122_f_at	0.004921	–0.3	2.3	–1.8	0.2	Cluster Incl AI323533:ubiquitin-like 4
101883_s_at	0.000003	1	1.6	–0.7	–0.6	Cluster Incl L22977:Mouse A12
96055_at	0.000001	1.8	1.5	–0.9	–0.6	Cluster Incl X59520:Cholecystokinin
102727_at	0.000001	1.7	1.4	–0.6	–0.9	Cluster Incl X55573:Brain derived neurotrophic factor
99494_at	0.000001	0.7	1.3	0	–0.3	Cluster Incl AJ001700:Mus musculus mRNA for neuroserpin
102700_at	0.000002	1.8	1.3	–0.6	–0.7	Cluster Incl U49251:T-box brain gene 1
92346_at	0.000087	1.1	1.1	–0.2	–0.5	Cluster Incl X05640:Neurofilament, medium polypeptide
103732_at	0.000086	0.1	1	0	0.1	Cluster Incl AI850079:sim to PI(4,5) bisphosphate 5-phosphataseA
160671_at	0.006226	0	1	–0.3	–0.1	Cluster Incl AW124836:ceroid-lipofuscinosis, neuronal 8, Cln8
104255_at	0.001676	0.6	0.9	–0.2	–0.2	Cluster Incl AA795285: EST sim. to hypothetical protein KIAA1695
100946_at	0.000236	0.4	0.9	–0.2	0.5	Cluster Incl AF109906:MHC class III region RD gene, Hsp70
160760_at	0.000198	0.3	0.9	–0.1	–0.4	Cluster Incl L10106:Protein tyrosine phosphatase, receptor type, K
93270_at	0.008401	0.1	0.8	0	–0.1	Cluster Incl AI839918:RIKEN cDNA 1200014I03 gene
93159_at	0.000103	0.6	0.8	0.2	–0.3	Cluster Incl AW122995:expressed sequence R74640
92989_f_at	0.000005	0.6	0.8	0	–0.3	Cluster Incl D86214:Ca2+ dependent activator protein for secretion
92727_at	0.009235	0.5	0.8	0	–0.1	Cluster Incl L34676:Amyloid beta (A4) precursor protein-binding,A2
93294_at	0.000009	1.7	0.8	–0.5	0	Cluster Incl M70642:Fibroblast inducible secreted protein
97909_at	0	0.6	0.7	–0.3	–0.4	Cluster Incl AI838080:leukemia-associated gene, Lag
92995_at	0.000111	0.8	0.7	–0.2	–0.4	Cluster Incl D21165:neural visinin-like Ca2+-binding protein type 1
99910_at	0.000841	0.5	0.7	0.1	0.1	Cluster Incl Y14634:proton-gated cation channels modulatory
100986_at	0.000191	0.6	0.6	–0.3	–0.3	Cluster Incl AF055889:Mus musculus LIM protein FHL2 (Fhl2)
104592_i_at	0.001972	1.1	0.6	0.3	0	Cluster Incl AI595996:myocyte enhancer factor 2C
95669_g_at	0.000153	0.8	0.6	–0.1	–0.3	Cluster Incl AI840972:stathmin-like 2, Stmb2
99574_at	0.009259	0.1	0.6	0.3	0.1	Cluster Incl AI850887:ESTs similar to RN12, Ring finger protein 12
98609_at	0.00266	0.2	0.6	0	–0.2	Cluster Incl AJ250723:septin-like protein Sint1 (Sint1 gene)
93479_at	0.003748	1.6	0.6	–0.3	–0.9	Cluster Incl AW122413:EST
99623_s_at	0.000011	1	0.6	–0.3	–0.4	Cluster Incl D78265:Mus musculus mRNA for pancortin-4
104591_g_at	0.000271	0.6	0.6	0.1	–0.2	Cluster Incl L13171:Myocyte enhancer factor 2C
94335_r_at	0.009259	0.5	0.6	–0.2	–0.3	Cluster Incl L27220:neuronal intermediate filament protein
103234_at	0.003858	0.8	0.6	–0.1	–0.4	Cluster Incl M35131:Neurofilament, heavy polypeptide
92317_at	0.000253	0.8	0.6	0	–0.5	Cluster Incl U29088:HU-antigen D
102983_at	0.002667	0	0.6	–0.1	–0.1	Cluster Incl U58992:MAD homolog 1 (Drosophila)
92807_at	0.000111	0.1	0.6	0.1	0	Cluster Incl X77585:Thioredoxin
93421_at	0.001128	0.7	0.5	–0.3	–0.2	Cluster Incl AF033655:PFTAIRE protein kinase 1
95670_at	0.000376	0.8	0.5	–0.1	–0.5	Cluster Incl AI839868:stathmin-like 2, Stmb2
97819_at	0.001387	0.1	0.5	0.3	0	Cluster Incl AI843119:glutathione S-transferase omega 1
104358_at	0.000092	0.4	0.5	0	–0.2	Cluster Incl AI853668:RIKEN cDNA 2410008H17 gene
95345_at	0.001017	0.7	0.5	–0.4	–0.4	Cluster Incl AJ012160:5T4 oncofetal trophoblast glycoprotein gene
96780_at	0.002195	0.1	0.5	0.8	–0.5	Cluster Incl AW208818:RIKEN cDNA 2410022L05 gene
94835_f_at	0.000017	0.3	0.5	0	–0.1	Cluster Incl M28739:Tubulin, beta 2
93134_at	0.000333	0.5	0.5	–0.2	–0.3	Cluster Incl U62021:Neuronal pentraxin 1
100513_at	0.000333	0.2	0.4	0.1	–0.2	Cluster Incl AF075461:ADP-ribosylation factor GTPase act. prot.
96258_at	0.001927	0.9	0.4	–0.3	–0.2	Cluster Incl AI843448:microsomal glutathione S-transferase 3
94325_at	0.000308	0.2	0.4	–0.2	0	Cluster Incl AW124932:EST sim to pre-B-cell leukemia trans factor
101501_r_at	0.001927	–0.2	0.4	0	0.1	Cluster Incl D87973:Imprinted and ancient
94201_at	0.001056	0.3	0.4	0.2	–0.2	Cluster Incl L42339:Mus musculus sodium channel 3 mRNA
161436_s_at	0.001927	0.3	0.3	0	0	Cluster Incl AV345565:adenosine deaminase, RNA-specific, B1
99047_at	0.000208	0.2	0.3	0.2	0.2	Cluster Incl U81317:Myelin-associated oligodendrocytic basic prot.

* *P* values of 0 were < 0.000001

*genes in red were significantly upregulated by CREB at 8 weeks ($P < 0.01$)

*genes represented more then once were identified multiple times on the array

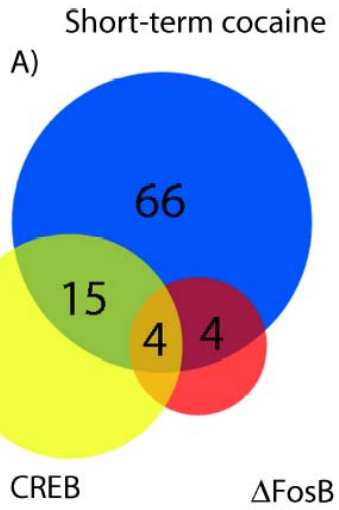
Explanation of column titles: Affy ID: the number assigned to each gene by Affymetrix. *P*-value: the corresponding *P*-value for the comparison of experimental values vs. controls for each gene. $\log_2$ ratio: the $\log_2$ ratio of the experimental value/control value for each gene. Gene: the name of the gene represented by each unigene cluster sequence present on the array and the genbank accession number assigned to each gene.

Supplemental Table 11

GENES UPREGULATED BY 5 DAYS OF COCAINE AND GENES UPREGULATED BY CREB AND ΔFOSB (LOG2 ≥ 0.3)

*log_2 ratios and *P*-values are given for cocaine vs saline
**P* values of 0 are less then 0.000001

yellow = CREB
red= ΔFosB
green = both CREB and ΔFosB



P-value	log_2 ratio coc/sal	genes
0.000154	3.7	Cluster Incl D29743:Mouse mRNA for syntaxin 1B
0.007531	3	Cluster Incl AI591702:kinesin family member 23
0.005742	2.8	Cluster Incl AA675031:EST
0.00878	2.8	Cluster Incl AB022913:mRNA for glutamate receptor channel alpha4
0.002375	2.4	Cluster Incl D26107:poliovirus receptor homolog protein soluble form
0.002667	2.4	Cluster Incl U00937:Mus musculus GADD45 protein (gadd45) gene
0.005494	2.4	Cluster Incl U55576:anti-DNA immunoglobulin light chain IgM mRNA,
0.000143	2.2	Cluster Incl AW215456:unc93 homolog B (C. elegans)
0.000467	2.1	Cluster Incl AF053235:Mus musculus keratin 16 mRNA
0.001474	1.9	Cluster Incl AB016275:Mus musculus Oaz-t gene
0.007152	1.9	Cluster Incl C80900:C80900 EST
0.005207	1.8	Cluster Incl AF017259:Mus musculus ribonuclease 4 precursor (mR-4)
0.003544	1.7	Cluster Incl U49046:Zinc finger protein 64
0.000236	1.6	Cluster Incl AF006466:lymphocyte specific formin related protein (Fr1)
0.009905	1.6	Cluster Incl AV303935:expressed sequence AW146116
0.000001	1.6	Cluster Incl AW120711:DnaJ (Hsp40) homolog, subfamily B, member 9
0.003748	1.6	Cluster Incl U01915:Topoisomerase (DNA) II alpha
0.000001	1.6	Cluster Incl U49251:T-box brain gene 1
0.000004	1.5	Cluster Incl AI841709:neurogranin
0.000009	1.5	Cluster Incl M70642:Fibroblast inducible secreted protein
0.000059	1.5	Cluster Incl U08210:Elastin
0.000001	1.5	Cluster Incl X59520:Cholecystokinin
0.000009	1.2	Cluster Incl AA867778:actinin, alpha 1
0	1.2	Cluster Incl AC002397:dentatorubral pallidoluysian atrophy
0.000382	1.2	Cluster Incl X68363:POU domain, class 2, transcription factor 1

0.000107	1.1	Cluster Incl AI180687:phosphodiesterase 4B, cAMP specific
0	1.1	Cluster Incl U59230:Mus musculus mel (MEL91) mRNA
0.002112	1	Cluster Incl AI853875:zinc ring finger protein 1
0	0.9	Cluster Incl AI844853:glucosaminyltransferase, I-branching enzyme
0	0.9	Cluster Incl U60150:Synaptobrevin 2
0.006442	0.8	Cluster Incl AF036893:Mus musculus circadian clock protein (Per2)
0.005207	0.8	Cluster Incl AI835016:nel-like 2 homolog (chicken)
0.000001	0.8	Cluster Incl AI848032:RIKEN cDNA E130012P22 gene
0.000025	0.8	Cluster Incl AW049142:RIKEN cDNA 9430029L20 gene
0.002375	0.8	Cluster Incl AW125118: EST similar to nuclear cap binding protein
0.000011	0.8	Cluster Incl M28845:Early growth response 1
0.000017	0.8	Cluster Incl Y18298:RNA for elav-type RNA-binding protein
0.000408	0.7	Cluster Incl AA791742:ARP2 actin-related protein 2 homolog (yeast)
0.002112	0.7	Cluster Incl AF047389:SRY-box containing gene 10
0.000003	0.7	Cluster Incl AI606891:MAP/microtubule affinity-regulating kinase 2
0.000031	0.7	Cluster Incl AI851599:EST
0.004934	0.7	Cluster Incl AV298145:RIKEN cDNA similar to putative RNA methyltransferase
0.000789	0.7	Cluster Incl AW046351:EST
0.000955	0.7	Cluster Incl AW120691:myosin binding protein H
0.003748	0.7	Cluster Incl D50621:Mouse mRNA for PSD-95/SAP90A
0.004673	0.7	Cluster Incl M90365:Junction plakoglobin
0.000021	0.7	Cluster Incl U51204:Mus musculus APC-binding protein EB2 mRNA
0.000789	0.7	Cluster Incl X12807:Mouse Sp6 mRNA containing period repeat
0.000789	0.7	Cluster Incl X14971:Mouse mRNA for alpha-adaptin (A)
0.000154	0.6	Cluster Incl AI746365:beta-transducin repeat containing protein
0.000043	0.6	Cluster Incl AI851703:hypothetical protein 9330175N02
0.000006	0.6	Cluster Incl AV091649: EST similar to microtubule-associated protein
0.000001	0.6	Cluster Incl AW048549:RIKEN cDNA 2900051M01 gene
0.000165	0.6	Cluster Incl AW060951:basic leucine zipper and W2 domains 2
0.000006	0.6	Cluster Incl AW120511:F-box and WD-40 domain protein 7, archipelago
0.00878	0.6	Cluster Incl D45903:Mus musculus mRNA for unc-18 homologue
0.000649	0.6	Cluster Incl U58887:SH3 domain protein 2C
0.004424	0.6	Cluster Incl X16645:glial cell adhesion molecule (AMOG)
0.001017	0.5	Cluster Incl AF035644:potentially prenylated protein tyrosine phosphatase
0.000408	0.5	Cluster Incl AF051357:Mus musculus golgin-245 (olp-1)

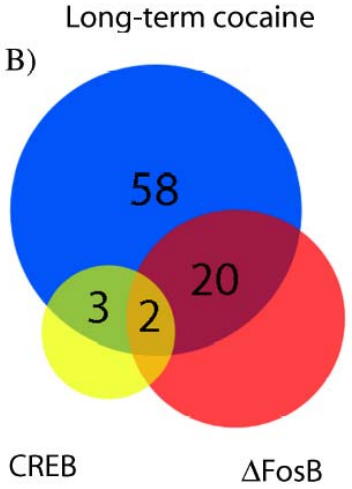
0.000025	0.5	Cluster Incl AI847687:actin-like 6
0.000499	0.5	Cluster Incl AI852087:RIKEN cDNA 1200017E04 gene similar to SEC14-like 1
0.000025	0.5	Cluster Incl AW048446:RIKEN cDNA 1700037H04 gene
0.000037	0.5	Cluster Incl L33726:Fascin 1
0.000311	0.5	Cluster Incl X14836:Calcium/calmodulin-dependent protein kinase II α
0.000079	0.5	Cluster Incl Y13344:Mus musculus Adora2a gene, exon 1
0.000143	0.4	Cluster Incl AB030836:ST6GalNAc V mRNA for GD1 alpha synthase
0.000408	0.4	Cluster Incl AF071186:Mus musculus WW domain binding protein 11
0.001664	0.4	Cluster Incl AI842968:cDNA similar to matrix associated actin dependent regulator of chromatin
0.005494	0.4	Cluster Incl AI844631:brain-specific angiogenesis inhibitor 1-associated protein2
0.001664	0.4	Cluster Incl AI848868:RIKEN cDNA 9130415E20 gene
0.000955	0.4	Cluster Incl AI850352:RIKEN cDNA 1810024J12 gene
0.000034	0.4	Cluster Incl AW121091:cDNA similar to succinate dehydrogenase
0.000205	0.4	Cluster Incl AW125219:RIKEN cDNA 2310047C21 gene
0.000002	0.4	Cluster Incl D26483:Mouse mRNA for PE31/TALLA
0.001387	0.4	Cluster Incl M17551:clone MIA14 full-length intracisternal A-particle gag
0	0.4	Cluster Incl U28217:Protein tyrosine phosphatase, non-receptor type 5
0.000205	0.4	Cluster Incl X95818:Synaptophysin
0.000205	0.4	Cluster Incl Y14771:Mus musculus mRNA for paralemmin
0.000027	0.3	Cluster Incl AF023343:Phosphodiesterase 1B1, Ca2+-calmodulin dependent, 63
0.001991	0.3	Cluster Incl AF107780:Mus musculus potassium channel Kv4.2
0.000271	0.3	Cluster Incl AJ002387:Mus musculus mRNA for BiP
0.000311	0.3	Cluster Incl AJ010949:mRNA for voltage gated calcium channel alpha-2-delta-C
0.001017	0.3	Cluster Incl AW124185:RIKEN cDNA B230114J08 gene
0.000025	0.3	Cluster Incl D50463:Mouse SDR1 mRNA
0.000063	0.3	Cluster Incl M28730:Tubulin, beta 4
0.000165	0.3	Cluster Incl M55181:Preproenkephalin 2
0.000533	0.3	Cluster Incl Z49976:Glutamic acid decarboxylase 1

Supplemental Table 12

GENES UPREGULATED BY 4 WEEKS OF COCAINE AND GENES THAT ARE ALSO REGULATED (LOG2 RATIO ≥ 0.3) BY CREB AND ΔFOSB

*log_2 ratios and *P*-values are given for cocaine vs saline
**P* values of 0 are less then 0.000001

yellow = CREB
red = ΔFosB
green = both CREB and ΔFosB



P-value	log_2 ratio exp/cont	genes
0.00971	5	Cluster Incl Y11356:M.musculus mRNA for beta-2-glycoprotein I
0.004673	4.2	Cluster Incl AB013874:Low Density Lipoprotein Receptor Related Protein 4
0.003544	3.8	Cluster Incl U04379:Zeta-chain (TCR) associated protein kinase (70kD)
0.000841	3.7	Cluster Incl U36575:Nuclear factor of activated T-cells, cytoplasmic 2
0.001991	3.5	Cluster Incl AI849827:sirtuin 1 (Sirt 1)
0.001664	3.4	Cluster Incl AA097203:SWI/SNF related, matrix assoc. actin dep reg of chromatin
0.002555	3.3	Cluster Incl AV071208:CGI-128 protein
0.003962	3.2	Cluster Incl AB018436:Mus musculus mRNA for OCTN3, complete cds
0.007531	3.2	Cluster Incl AV233977:sec13-like protein
0.004673	3.1	Cluster Incl M14167:ADA gene encoding adenosine deaminase, promoter region
0.000896	3	Cluster Incl AV223216:interleukin 1 receptor, type II. IL1R2
0.005796	3	Cluster Incl X66976:M.musculus col8a1 gene, exon 1 (and joined CDS)
0.009259	2.9	Cluster Incl AA275196:nucleolar protein ANKT (putative)
0.00971	2.9	Cluster Incl M30903:B lymphoid kinase
0.006111	2.8	Cluster Incl L24191:Gastric intrinsic factor
0.00224	2.6	Cluster Incl X67348:Procollagen, type X, alpha 1
0.001152	2.4	Cluster Incl AV233144:EST
0.001474	2.4	Cluster Incl X99806:Tectorin beta
0.007929	2.2	Cluster Incl Y12582:M.musculus mRNA for calpain-like protease
0.001664	2.1	Cluster Incl AF053974:Mus musculus SWAP-70 mRNA, complete cds
0.006111	2.1	Cluster Incl AI225445:DNA cross-link repair 1A, PSO2 homolog Dclre1a
0.00057	2.1	Cluster Incl U82375: MSG2alpha, beta, gamma, delta and epsilon protein
0.006111	2	Cluster Incl AV335882:cofilin 2, muscle,Cfl2
0.004673	1.9	Cluster Incl AB012393:TIPR mRNA for inositol 1,4,5 trisphosphate receptor type2
0.000047	1.8	Cluster Incl X16490:Plasminogen activator inhibitor, type II
0.004934	1.7	Cluster Incl AF020184:Mus musculus neuronal calcium sensor-1 (NCS-1) mRNA

0.007152	1.6	Cluster Incl U35108:Interleukin 17
0.003166	1.5	Cluster Incl AB010297:mRNA for actin-related protein 1 alpha-isoform
0.004424	1.4	Cluster Incl AF063937:Squamous cell carcinoma antigen 2
0.004934	1.4	Cluster Incl AW123574:EST
0.005494	1.2	Cluster Incl AI845438:EST zinc finger domain
0.009235	1.1	Cluster Incl AF078112:calcium signal-modulating ligand (Camlg) gene, promoter
0.003351	1.1	Cluster Incl D16631:Transcription factor E2a
0.002485	1	Cluster Incl AV292740:EST
0.000015	1	Cluster Incl U58134:Mus musculus poly(A) polymerase VI mRNA
0.000533	1	Cluster Incl X87142:Calcium/calmodulin-dependent protein kinase II alpha
0.008345	1	Cluster Incl X90819:Inhibin beta-C
0.001991	0.9	Cluster Incl AV324433:EST
0.007531	0.9	Cluster Incl U12890:Killer cell lectin-like receptor, subfamily A, member 7
0.003962	0.9	Cluster Incl X52129:Mouse testis-specific mRNA pBs6.2
0.000499	0.8	Cluster Incl AA285978:EST
0	0.8	Cluster Incl AI152867:Mus musculus, eukaryotic translation initiation factor 2C
0	0.8	Cluster Incl AI835081:ESTs, Moderately similar to protein kinase, lysine deficient 1
0.001474	0.8	Cluster Incl AJ224761:lysine-ketoglutarate reductase/saccharopine dehydrogenase
0.005494	0.8	Cluster Incl D17577:Kinesin heavy chain member 1B
0.006111	0.8	Cluster Incl M95175:Mouse guanylin mRNA, complete cds
0.000003	0.8	Cluster Incl V00727:FBJ osteosarcoma oncogene
0.000003	0.8	Cluster Incl X16995:Hormone receptor
0.000003	0.7	Cluster Incl AB028272:Mus musculus hsp40 mRNA for heat shock protein 40
0.000841	0.7	Cluster Incl AW212271:KIAA1866 protein (putative)
0.001387	0.7	Cluster Incl K01668:mast cell growth factor (MCGF) mRNA and 5 flank (partial)
0.002211	0.7	Cluster Incl M25529:Serine protease inhibitor 1
0.001664	0.6	Cluster Incl AF022992:Period homolog (Drosophila)
0.000092	0.6	Cluster Incl AF064088:Mus musculus transcription factor GIF mRNA
0.000037	0.6	Cluster Incl AF079535:3-phosphoinositide dependent protein kinase-1
0.000841	0.6	Cluster Incl AV360565:crystallin, gamma F
0.001876	0.6	Cluster Incl U16162:Mus musculus prolyl 4-hydroxylase alpha(I)-subunit mRNA
0.006442	0.6	Cluster Incl X58472:Mouse KIN17 mRNA for kin17 protein
0.000013	0.6	Cluster Incl X61940:Mouse mRNA for a growth factor-inducible immediate early
0.000437	0.5	Cluster Incl AA611766:Kruppel-like factor 5, Klf5
0	0.5	Cluster Incl AI845584:dual specificity phosphatase 6,Dusp6
0.000022	0.5	Cluster Incl AV319920:ESTs, Moderately similar to protein kinase, lysine deficient
0.000896	0.5	Cluster Incl C80153:DNA segment, Chr X, ERATO Doi 242, DXErtd242e

0.000165	0.5	Cluster Incl L00919:Erythrocyte protein band 4.1
0.000006	0.5	Cluster Incl L27453:Pre B-cell leukemia transcription factor 1
0.00224	0.4	Cluster Incl AA606318:Tu translation elongation factor, mitochondrial (putative)
0.000955	0.4	Cluster Incl AF009414:Mus musculus SOX11 (Sox11) mRNA
0.000068	0.4	Cluster Incl AF032115:Mus musculus cysteine string protein mRNA, complete cds
0.001226	0.4	Cluster Incl AF061017:UDP-glucose dehydrogenase
0.000115	0.4	Cluster Incl AI122079:EST
0.001664	0.4	Cluster Incl AI834976:UDP-glucuronic acid/UDP-N-acetylgalactosamine transport
0.000271	0.4	Cluster Incl AI841777:Similar to pyridoxal kinase, clone MGC:29261
0.000099	0.4	Cluster Incl AI845165:Mus musculus, Similar to phosphatidylserine decarboxylase
0.000027	0.4	Cluster Incl AI848032:carbonic anhydrase 14, Car14
0.000029	0.4	Cluster Incl AI853930:2810012H18Rik EST
0.000099	0.4	Cluster Incl AW048552:EST
0.000047	0.4	Cluster Incl AW108350:ribosomal protein S4, X-linked (putative)
0.000009	0.4	Cluster Incl M38381:CDC-like kinase
0.001767	0.4	Cluster Incl U20344:Gut enriched Kruppel-like factor
0.000063	0.4	Cluster Incl U20857:RAN GTPase activating protein 1
0.001152	0.4	Cluster Incl U59230:Mus musculus mel (MEL91) mRNA, complete cds
0.001474	0.3	Cluster Incl AV161234:GPI anchor attachment protein 1,Gpaa1
0.000408	0.3	Cluster Incl AW121646:EST