

Table 4. Genes decreased by MntBAP

Cell Structure / Cell Surface		MntBAP	SEB
Genbank	Gene Name		
AK004554	actin-related protein 3 homolog (yeast)	2628	5444
NM_018772	brain protein I3	1247	2841
NM_011787	autocrine motility factor receptor	1231	2207
NM_011390	solute carrier family 12, member 7	184	2087
NM_026552	actin related protein 2/3 complex, subunit 4	923	2012
NM_030238	dynein, cytoplasmic, heavy chain 1	820	1765
NM_007932	endoglin	635	1274
NM_011722	dynactin 6	467	1139
NM_018739	retinitis pigmentosa 9 homolog (human)	454	847
NM_008577	scf 3 (activators of dibasic and neutral amino acid transport)	-611	572
BC025618	Similar to ATPase, Na ⁺ /K ⁺ transporting, alpha 1a.1	28	517
NM_009287	stromal interaction molecule 1	-98	457
X15052	neural cell adhesion molecule 1	94	434
X53176	integrin alpha 4	104	398
NM_010796	macrophage galactose N-acetyl-galactosamine specific lectin	137	326
BC003300	ATP-binding cassette, sub-family F (GCN20), member 2	-33	292
NM_011334	chloride channel 4-2	102	289
NM_032396	kringle containing transmembrane protein	140	275
NM_009320	scf 6 (neurotransmitter transporter, taurine), member 6	102	261
NM_026369	actin related protein 2/3 complex, subunit 5 (165 kDa)	-155	233
NM_008448	kinesin family member 5B	78	219
NM_013687	t-complex protein 11	70	183
NM_007697	close homolog of L1	45	173
AF090190	kinesin heavy chain member 1B	60	136
AF356522	dynein, axon, heavy chain 8	-135	135
NM_018764	protocadherin 7	17	134
NM_011895	scf 35 (CMP-sialic acid transporter), mem ber 1	53	125
Signal Transduction		MntBAP	SEB
NM_010907	I-kappa B alpha chain	3278	6159
BC003707	SEC61, alpha subunit (<i>S. cerevisiae</i>)	1210	4526
BC021473	CDP-diacylglycerol--inositol 3-phosphatidyltransferase	1543	3838
AJ131777	src-like adaptor protein	627	2430
NM_011103	protein kinase C, delta	740	1446
NM_007406	adenylate cyclase 7	764	1409
NM_009048	RalBP1 associated Eps domain containing protein	661	1200
NM_017380	septin 9	518	1132
NM_011368	src homology 2 domain-containing transforming protein C1	554	1025
AK014542	huntingtin interacting protein 1 related	327	975
NM_024289	oxysterol binding protein homolog 1	-335	807
NM_019772	small acidic protein	420	792
AF075461	development and differentiation enhancing	366	778
NM_029780	v-raf-1 leukemia viral oncogene 1	35	770
AK005067	calcium binding protein P22	396	770
NM_018804	synaptotagmin 11	387	769
AK018785	RAS-like protein expressed in many tissues	358	688
NM_019774	A kinase (PRKA) anchor protein 8	347	628
NM_021537	serine/threonine kinase 25 (yeast)	245	513
AK016482	toll interacting protein	224	423

Genbank	Gene Name	MnTBAP	SEB
NM_021420	serine/threonine kinase 4	203	395
BC025597	Similar to CaM kinase II beta	113	345
NM_011244	retinoic acid receptor, gamma	109	342
U46956	66 Kd isoform of src homology collagen protein	146	330
NM_009443	trans-golgi network protein 1	176	326
BC017639	ATPase, Ca ⁺⁺ transporting, ubiquitous	170	313
NM_008847	phosphatidylinositol-4-phosphate 5-kinase, type 1 beta	101	302
NM_019491	v-ral simian leukemia viral oncogene homolog A	91	296
NM_009147	SEC23A (<i>S. cerevisiae</i>)	137	287
NM_031168	interleukin 6	98	270
AF263240	Down syndrome critical region homolog 1 (human)	-55	263
NM_023813	calcium/calmodulin-dependent protein kinase II, delta	43	262
NM_010585	inositol 1,4,5-triphosphate receptor 1	76	251
NM_031999	transmembrane 7 superfamily member 1	48	217
NM_019718	ADP-ribosylation-like 3	-138	194
ET61622	putative protein kinase MRK3	-301	188
NM_021463	phosphoribosyl pyrophosphate synthetase 1	-73	185
AB060650	Mus musculus mRNA for small GTPase Tc10, complete cds	72	163
NM_009624	adenylate cyclase 9	51	146
NM_009034	retinol binding protein 2, cellular	22	117
AK012196	phosphatidylinositol-4-phosphate 5-kinase, type II, alpha	-276	112

Gene Expression / Nucleic Acid Binding	MnTBAP	SEB	
NM_013866	zinc finger protein 385	2898	5894
NM_010365	general transcription factor II I	2524	4978
NM_008672	nucleosome assembly protein 1-like 4	886	2663
NM_010286	glucocorticoid-induced leucine zipper	1277	2597
NM_133206	zinc ring finger protein 1	1299	2378
NM_021538	coatamer protein complex, subunit epsilon	1035	1944
NM_013595	methyl-CpG binding domain protein 3	913	1849
NM_018749	eukaryotic translation initiation factor 3, subunit 7	668	1602
AK012154	phenylalanine-tRNA synthetase-like	686	1558
NM_023240	eukaryotic translation elongation factor 1 delta	345	1495
NM_010500	immediate early response 5	722	1283
NM_007932	endoglin	635	1274
NM_009279	signal sequence receptor, delta	535	1250
BC011391	upstream regulatory element binding protein 1	584	1246
NM_010286	glucocorticoid-induced leucine zipper	476	1232
NM_009048	RalBP1 associated Eps domain containing protein	661	1200
NM_026578	nucleolar protein family A, member 1	607	1193
NM_021465	stromal antigen 2	533	1189
ET61635	retinoblastoma-related protein p130	486	1180
NM_019479	hairy and enhancer of split 6, (<i>Drosophila</i>)	531	964
NM_008138	guanine nucleotide binding protein, alpha inhibiting 2	87	946
BC012408	calnexin	465	912
NM_080461	zinc finger protein 358	446	891
AF316548	zinc finger protein 148	386	832
NM_011803	core promoter element binding protein	349	792
AK012944	U2 small nuclear ribonucleoprotein B	409	786
NM_013916	Hoxa1 regulated gene	303	682
NM_008672	nucleosome assembly protein 1-like 4	353	672
NM_024226	reticulon 4	320	671

Genbank	Gene Name	MnTBAP	SEB
AK014325	RAE1 RNA export 1 homolog (S. pombe)	234	634
NM_133247	Vhlh-interacting deubiquitinating enzyme 1	314	626
AF374266	sterol regulatory element binding factor 1	-102	620
ET62993	M.musculus mRNA fragment for Ki-67 antigen.	318	616
AY007594	transcription factor 20	205	616
X54327	M.musculus mRNA for glutamyl-tRNA synthetase	300	599
BC016637	general transcription factor IIB	-181	562
AK012358	ring finger protein 2	82	559
NM_007622	chromobox homolog 1 (Drosophila HP1 beta)	198	535
NM_019502	fractured callus expressed transcript 1	256	532
BC013716	heat shock factor 1	252	520
M77167	activating transcription factor 2	136	486
BC028325	G1 to phase transition 1	223	460
NM_020587	splicing factor, arginine/serine-rich 4 (SRp75)	-437	458
NM_009125	spinocerebellar ataxia 2 homolog (human)	141	455
NM_026329	polymerase (RNA) II (DNA directed) polypeptide G	196	432
NM_053092	lysyl-tRNA synthetase	134	426
X66091	M.musculus ASF mRNA	140	416
BC025146	uridine monophosphate kinase	34	362
NM_130885	nucleolar protein C7	168	359
AK012154	phenylalanine-tRNA synthetase-like	-634	348
NM_009444	trans-golgi network protein 2	-59	347
AB021860	activator of basal transcription	137	344
AF325921	actin dep. regulator of chromatin, subfamily a, member 5	171	331
NM_008637	8-oxo-dGTPase	143	309
NM_019479	hairy and enhancer of split 6, (Drosophila)	-172	302
AK004765	zinc finger protein 263	71	287
NM_011431	U5 small nuclear ribonucleoprotein 116 kDa	-455	264
NM_011317	KH domain containing, RNA binding	81	244
NM_010264	nuclear receptor subfamily 6, group A, member 1	116	238
NM_052973	nuclear autoantigen	21	193
NM_007658	cell division cycle 25 homolog A (S. cerevisiae)	84	176
NM_009537	YY1 transcription factor	-355	158
AK013880	asparaginyl-tRNA synthetase	-211	150
NM_031494	Zinc finger protein 275	-8	147
BC013717	eukaryotic translation termination factor 1	-296	141
NM_016812	Btg3 associated nuclear protein	22	131
NM_011757	zinc finger proliferation 1	-15	106
BC027747	RAD23b homolog (S. cerevisiae)	-149	104
NM_016706	coilin	-77	103
NM_011561	thymine DNA glycosylase	18	103
NM_018813	cleavage and polyadenylation specificity factor 3	-33	102

Apoptosis / Oncogenes

		MnTBAP	SEB
NM_007828	death-associated kinase 3	433	795
NM_009396	tumor necrosis factor, alpha-induced protein 2	337	621
NM_009101	Harvey rat sarcoma oncogene, subgroup R	42	335
NM_007465	baculoviral IAP repeat-containing 3	10	192

Enzymes/Proteases

		MnTBAP	SEB
NM_008906	protective protein for beta-galactosidase	1615	3219
NM_030702	smt3-specific isopeptidase 1	726	1679

Genbank	Gene Name	MnTBAP	SEB
NM_015749	transcobalamin 2	627	1558
NM_022310	heat shock 70kD protein 5 (glucose-regulated protein, 78kD)	388	1280
NM_011738	tyr. 3-monooxyg./trypt. 5-monooxy. activation protein, eta	377	1086
AK012540	tyr. 3-monooxyg./trypt. 5-monooxyg. activation protein, theta polypeptide	213	882
NM_008220	hemoglobin, beta adult major chain	338	718
NM_013635	pantophysin	332	660
NM_010794	mannoside acetylglucosaminyltransferase 1	-180	612
NM_008292	hydroxysteroid (17-beta) dehydrogenase 4	275	579
NM_011740	tyr. 3-monooxyg./trypt. 5-monooxyg. activation protein, zeta	263	521
NM_019489	peptidylprolyl isomerase E (cyclophilin E)	281	509
BC009147	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 16	252	453
NM_009984	cathepsin L	152	406
AK012540	tyr. 3-monooxyg./trypt. 5-monooxyg. activation protein, theta	176	378
NM_009498	vesicle-associated membrane protein 3	54	337
NM_021714	WW domain binding protein 11	-151	317
AK004820	protease, serine, 15	-536	277
NM_009984	cathepsin L	44	214
NM_011847	DnaJ (Hsp40) homolog, subfamily B, member 6	-597	202
NM_011192	proteasome (prosome, macropain) 28 subunit, 3	-59	185
NM_009982	cathepsin C	59	147
NM_024258	ubiquitin specific protease 16	38	146
NM_018743	putative lysophosphatidic acid acyltransferase	-112	145
NM_009454	ubiquitin-conjugating enzyme E2E 3, UBC4/5 homolog (yeast)	73	139
NM_021522	ubiquitin specific protease 14	1	133
M16395	M16395 Mouse alpha-fetoprotein (AFP) gene	-108	119
NM_019800	acid phosphatase 6, lysophosphatidic	-184	112

Immunity		MnTBAP	SEB
NM_019909	MHC (A.CA/J(H-2K-f) class I antigen	1965	3634
U68543	immunoglobulin kappa chain variable 28 (V28)	133	1112
ET62534	T-cell surface glycoprotein CD4	537	988
NM_009844	CD19 antigen	-253	654
ET62761	anti-von Willebrand factor antibody NMC-4 heavy chain	40	391
ET61288	anti-DNA immunoglobulin heavy chain variable region	56	240
NM_010389	histocompatibility 2, O region beta locus	-43	148
X13588	Murine crp gene for C-reactive protein.	-123	143

Mitochondria		MnTBAP	SEB
NM_007494	argininosuccinate synthetase 1	1105	2569
NM_013671	superoxide dismutase 2, mitochondrial	429	1141
AK005710	scf 25 (mitochondrial deoxynucleotide carrier), member 19	407	1043
NM_013850	ATP-binding cassette, sub-family A (ABC1), member 7	92	1022
BC017687	ubiquinol-cytochrome c reductase core protein 1	327	1020
NM_009897	creatine kinase, mitochondrial 1, ubiquitous	129	472
NM_010926	neighbor of Cox4	261	462
NM_025927	mitochondrial ribosomal protein L45	44	376
NM_008898	P450 (cytochrome) oxidoreductase	149	301
NM_026172	2,4-dienoyl CoA reductase 1, mitochondrial	154	277
NM_080633	aconitase 2, mitochondrial	66	241
NM_007760	carnitine acetyltransferase	85	227
BC002178	enoyl Coenzyme A hydratase, short chain, 1, mitochondrial	29	222
NM_025578	mitochondrial ribosomal protein S25	8	156