

**Table S7. Common genes downregulated by live *Borrelia burgdorferi* (Bb) alone or combined with IL-10 at 4 h post-stimulation**

Gene number	Annotation	Fold change		Description/function
		Live Bb	Live Bb + IL-10	
				<b>Enzyme</b>
AK004787	Ndst1	-1.04	-1.96	N-deacetylase/N-sulfotransferase (heparan glucosaminy) 1
AK012436	AK012436	-1.53	-1.65	adenylate cyclase 7
AK033485	D230012E17Rik	-1.42	-1.13	post-GPI attachment to proteins 1
NM_007398	Ada	-1.46	-1.87	adenosine deaminase
NM_007406	Adcy7	-1.2	-1.97	adenylate cyclase 7
NM_007485	Rhod	-1.27	-2.29	ras homolog gene family, member D
NM_008567	Mcm6	-1.44	-1.95	minichromosome maintenance complex component 6
NM_009104	Rrm2	-1.3	-1.64	ribonucleotide reductase M2
NM_009128	Scd2	-1.69	-1.44	stearoyl-Coenzyme A desaturase 2
NM_009183	St8sia4	-2	-2.72	ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyltransferase
NM_009624	Adcy9	-1.71	-1.61	adenylate cyclase 9
NM_010401	Hal	-1.93	-2.22	histidine ammonia-lyase
NM_010631	Kifc3	-1.45	-1.61	kinesin family member C3
NM_011226	Rab19	-3.21	-2.98	RAB19, member RAS oncogene family
NM_011677	Ung	-2.01	-2.15	uracil-DNA glycosylase
NM_013495	Cpt1a	-1.44	-1.69	carnitine palmitoyltransferase 1A (liver)
NM_016802	Rhoa	-1.07	-1.78	ras homolog gene family, member A
NM_018822	Sgsh	-1.69	-2.34	N-sulfoglucosamine sulfohydrolase
NM_025331	Gng11	-1.15	-1.32	guanine nucleotide binding protein (G protein), gamma 11
NM_026557	Rchyl	-1.91	-1.64	ring finger and CHY zinc finger domain containing 1
NM_028841	Tspan17	-1.14	-1.58	tetraspanin 17
NM_029519	Rap2a	-2.86	-3.01	RAP2A, member of RAS oncogene family
NM_138315	Mical1	-2.03	-2.64	microtubule associated monooxygenase, calponin and LIM domain containing 1
NM_144819	Ccdc92	-1.5	-1.48	coiled-coil domain containing 92
NM_153783	Paox	-1.17	-1.34	polyamine oxidase (exo-N4-amino)
NM_172415	Arhgef10l	-1.6	-1.65	Rho guanine nucleotide exchange factor (GEF) 10-like
NM_172715	A230097K15Rik	-1.27	-2.06	1-acylglycerol-3-phosphate O-acyltransferase 9
NM_177305	Arl4c	-2.1	-2.93	ADP-ribosylation factor-like 4C
				<b>G-protein coupled receptor</b>
NM_009910	Cxcr3	-1.03	-1.69	chemokine (C-X-C motif) receptor 3
NM_009924	Cnr2	-2.49	-2.64	cannabinoid receptor 2 (macrophage)
NM_013533	Gpr162	-1.19	-1.96	G protein-coupled receptor 162
NM_175116	P2ry5	-1.94	-2.39	lysophosphatidic acid receptor 6
				<b>Growth factor</b>
NM_007426	Angpt2	-2.98	-3.52	angiopoietin 2
NM_009368	Tgfb3	-1.44	-1.82	transforming growth factor, beta 3
NM_013598	Kitl	-1.11	-1.55	KIT ligand
NM_027950	1700012B18Rik	-1.29	-2.11	oxidative stress induced growth inhibitor 1

NM_010598	Kcnab2	-1.49	-1.24	<b>Ion channel</b> potassium voltage-gated channel, shaker-related subfamily, beta member 2
NM_011027	P2rx7	-1.78	-2.07	purinergic receptor P2X, ligand-gated ion channel, 7
NM_019432	Tmem37	-1.54	-2.1	transmembrane protein 37
NM_175274	Ttyh3	-1.29	-1.45	tweety homolog 3 (Drosophila)
				<b>Kinase</b>
AK009645	Pdxk	-1.19	-2.12	pyridoxal (pyridoxine, vitamin B6) kinase
NM_007377	Aatk	-2.06	-1.86	apoptosis-associated tyrosine kinase
NM_009371	Tgfbr2	-1.64	-1.85	transforming growth factor, beta receptor II (70/80kDa)
NM_009582	Map3k12	-1.26	-1.28	mitogen-activated protein kinase kinase kinase 12
NM_011496	Aurkb	-1.53	-1.82	aurora kinase B
NM_130863	Adrbk1	-1.26	-1.21	adrenergic, beta, receptor kinase 1
NM_133810	Stk17b	-1.61	-1.58	serine/threonine kinase 17b
XM_620516	Rkhd3	-1.64	-3.16	Mex-3 homolog B (C. elegans)
				<b>Peptidase</b>
AK021184	AK021184	-1.18	-1.56	ADAM metallopeptidase domain 10
AK030860	C030044C12Rik	-2.13	-1.94	ring finger protein 150
NM_015733	Casp9	-1.52	-2.04	caspase 9, apoptosis-related cysteine peptidase
				<b>Phosphatase</b>
BC058749	Synj2	-1.43	-1.25	synaptojanin 2
NM_010566	Inpp5d	-1.71	-2.58	inositol polyphosphate-5-phosphatase, 145kDa
NM_011204	Ptpn13	-1.4	-2.28	protein tyrosine phosphatase, non-receptor type 13 (APO-1/CD95 (Fas)-associated phosphatase)
NM_011206	Ptpn18	-1.25	-1.56	protein tyrosine phosphatase, non-receptor type 18 (brain-derived)
NM_011216	Ptpro	-1.44	-1.98	protein tyrosine phosphatase, receptor type, O
NM_013753	X99384	-1.49	-1.56	KIAA1274
NM_023117	Cdc25b	-1.72	-1.93	cell division cycle 25 homolog B (S. pombe)
NM_026268	Dusp6	-3.18	-3.59	dual specificity phosphatase 6
NM_146012	Ctdsp2	-1.69	-1.76	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase 2
				<b>Transcription regulator</b>
AF024519	Tsc22d3	-1.84	-2.39	TSC22 domain family, member 3
AK035245	Atf7ip	-1.2	-1.23	activating transcription factor 7 interacting protein
BC086482	Ncoa3	-1.03	-1.29	nuclear receptor coactivator 3
NM_007496	Atbf1	-1.39	-2.82	zinc finger homeobox 3
NM_007671	Cdkn2c	-1.61	-1.27	cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4)
NM_008021	Foxm1	-1.11	-1.7	forkhead box M1
NM_008245	Hhex	-2.14	-2.74	hematopoietically expressed homeobox
NM_009333	Tcf7l2	-1.7	-2.63	transcription factor 7-like 2 (T-cell specific, HMG-box)
NM_009569	Zfp1	-1.5	-2.18	zinc finger protein, multitype 1
NM_010286	Tsc22d3	-1.63	-1.6	TSC22 domain family, member 3
NM_010412	Hdac5	-1.5	-1.35	histone deacetylase 5
NM_010495	Id1	-2.61	-2.44	inhibitor of DNA binding 1, dominant negative helix-loop-helix protein
NM_016769	Smad3	-1.64	-1.27	SMAD family member 3

NM_017405	Lsr	-1.43	-1.43	lipolysis stimulated lipoprotein receptor
NM_020005	Pcaf	-1.23	-1.61	K(lysine) acetyltransferase 2B
NM_020331	Gtf2ird1	-1.27	-1.86	GTF2I repeat domain containing 1
NM_025674	Tcf19	-1.99	-2.02	transcription factor 19
NM_026756	Nfic	-1.44	-1.57	nuclear factor I/C (CCAAT-binding transcription factor)
NM_029619	Msrb2	-1.82	-1.95	methionine sulfoxide reductase B2
NM_031184	Glis2	-1.37	-1.81	GLIS family zinc finger 2
NM_134250	Havcr2	-1.74	-2.57	mediator complex subunit 7
NM_175494	Zfp367	-1.52	-2.06	zinc finger protein 367
NM_177733	E2f2	-2.42	-2.74	E2F transcription factor 2
U19596	Cdkn2c	-1.4	-1.44	cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4)
<b>Translation regulator</b>				
AK017827	Eif2c4	-1.39	-1.67	eukaryotic translation initiation factor 2C, 4
<b>Transmembrane receptor</b>				
AK088666	Igh-6	-1.64	-1.99	immunoglobulin heavy constant mu
NM_009378	Thbd	-2.39	-2.56	thrombomodulin
NM_133211	Tlr7	-1.29	-1.41	toll-like receptor 7
NM_133212	Tlr8	-1.9	-1.29	toll-like receptor 8
XM_916118	Tlr5	-1.48	-1.62	toll-like receptor 5
<b>Transporter</b>				
NM_007941	Epim	-1.44	-1.66	syntaxin 2
NM_009593	Abcg1	-2.89	-3.88	ATP-binding cassette, sub-family G (WHITE), member 1
NM_020258	Slc37a2	-1.44	-1.9	solute carrier family 37 (glycerol-3-phosphate transporter), member 2
NM_026386	Snx2	-1.01	-1.62	sorting nexin 2
NM_027521	Hmha1	-2.02	-2.07	histocompatibility (minor) HA-1
NM_028123	Slc37a3	-1.35	-1.27	solute carrier family 37 (glycerol-3-phosphate transporter), member 3
NM_029097	Atp13a2	-1.09	-1.52	ATPase type 13A2
NM_029394	Snx24	-1.87	-1.51	sorting nexin 24
NM_030696	Slc16a3	-1.7	-1.77	solute carrier family 16, member 3 (monocarboxylic acid transporter 4)
NM_134154	AW491445	-1.84	-1.63	solute carrier family 25, member 45
NM_145554	Ldlrap1	-1.42	-1.29	low density lipoprotein receptor adaptor protein 1
NM_145823	Pitpnc1	-1.23	-1.41	phosphatidylinositol transfer protein, cytoplasmic 1
NM_172277	Snx8	-1.22	-1.22	sorting nexin 8
NM_172773	Slc17a5	-1.22	-1.28	solute carrier family 17 (anion/sugar transporter), member 5
NM_172780	Slc9a6	-1.35	-1.36	solute carrier family 9 (sodium/hydrogen exchanger), member 6
NM_175025	Atp2c1	-1.02	-1.43	ATPase, Ca <sup>++</sup> transporting, type 2C, member 1
NM_178743	Slc26a11	-2.62	-3.13	solute carrier family 26, member 11
<b>Other</b>				
8430408O14	8430408O14	-2.13	-2.04	Unknown
A_51_P183703	A_51_P183703	-1.22	-1.24	Unknown
AF020313	Apbb1ip	-1.25	-1.64	amyloid beta (A4) precursor protein-binding, family B, member 1 interacting protein
AF180471/NM_015863	Lpin1	-1.55	-2.08	Unknown

AF479672	Purg	-1.58	-1.68	purine-rich element binding protein G
AK007434	1810011H11Rik	-1.5	-1.48	chromosome 10 open reading frame 128
AK009333	2310014D11Rik	-1.22	-1.89	RIKEN cDNA 2310014D11 gene
AK012399	2700049A03Rik	-1.21	-1.21	KIAA0586
AK030332	5031439G07Rik	-1.39	-1.38	chromosome 22 open reading frame 9
AK039250	AK039250	-1.28	-1.23	Unknown
AK050117	AK050117	-1.2	-1.59	Unknown
AK051905	Cbx8	-1.39	-1.31	chromobox homolog 8
AK082964	Creb3l2	-1.15	-1.51	cAMP responsive element binding protein 3-like 2
AK129160	4732460K03Rik	-1.63	-2.51	zinc finger protein 862
AK132165/NM001025577	Maf	-2.31	-2	Unknown
AK133157	6430548M08Rik	-2.13	-2.69	KIAA0513
AK147212	Zbtb4	-1.72	-2.09	zinc finger and BTB domain containing 4
AK147269	Hip1	-1.71	-1.68	huntingtin interacting protein 1
AK147384	Nt5dc3	-1.64	-1.96	diacylglycerol lipase, alpha
AK162197	1190002N15Rik	-1.16	-1.21	chromosome 3 open reading frame 58
AK166886	Iqsec1	-1.76	-1.82	IQ motif and Sec7 domain 1
BC028539	H2afv	-1.25	-1.44	H2A histone family, member V
BC055076	Tns1	-1.22	-2.93	tensin 1
BC056501	Slc45a4	-1.14	-1.48	solute carrier family 45, member 4
BC057094	Trim65	-1.69	-1.5	tripartite motif-containing 65
BC070477	2010317E24Rik	-1.85	-1.77	chromosome 9 open reading frame 140
BC080858	Kbtbd11	-2.66	-2.84	kelch repeat and BTB (POZ) domain containing 11
BF683009	BF683009	-1.37	-1.36	Unknown
BG961926	Spry2	-1.8	-2.09	sprouty homolog 2 (Drosophila)
ENSMUST00000003582	ENSMUST00000003582	-1.19	-1.85	Unknown
NM_001001880	Mpzl1	-1.05	-1.68	myelin protein zero-like 1
NM_001003815	Epb4.111	-1.76	-1.63	erythrocyte membrane protein band 4.1-like 1
NM_001005421	Amica1	-1.21	-1.58	adhesion molecule, interacts with CXADR antigen 1
NM_001013368	E2f8	-1.71	-2.66	E2F transcription factor 8
NM_001013370	Sesn1	-1.7	-1.47	sestrin 1
NM_001039472	Kif21b	-1.38	-2.05	kinesin family member 21B
NM_007408	Adfp	-1.33	-1.48	perilipin 2
NM_007631	Cend1	-3.21	-3.87	cyclin D1
NM_007681	Cenpa	-1.55	-2.1	centromere protein A
NM_007796	Ctla2a	-1.68	-1.89	cytotoxic T lymphocyte-associated protein 2 alpha
NM_007965	Evl	-1.36	-2.01	Enah/Vasp-like
NM_008511	Lrmp	-1.25	-1.27	lymphoid-restricted membrane protein
NM_008535	Lyl1	-1.83	-2.04	lymphoblastic leukemia derived sequence 1
NM_009025	Rasa3	-2.36	-2.74	RAS p21 protein activator 3
NM_009061	Rgs2	-1.37	-2.06	regulator of G-protein signaling 2, 24kDa
NM_009741	Bcl2	-1.13	-2.24	B-cell CLL/lymphoma 2
NM_010071	Dok2	-1.19	-1.98	docking protein 2, 56kDa
NM_011020	Hspa4l	-1.45	-1.85	heat shock 70kDa protein 4-like

NM_011415	Snai2	-1.75	-2.34	snail homolog 2 (Drosophila)
NM_011653	Tuba1	-1.25	-1.87	tubulin, alpha 1a
NM_011764	Zfp90	-1.37	-1.35	zinc finger protein 90 homolog (mouse)
NM_011799	Cdc6	-1.94	-1.99	cell division cycle 6 homolog (S. cerevisiae)
NM_013710	Fgd2	-1.17	-1.91	FYVE, RhoGEF and PH domain containing 2
NM_013843	Zfp53	-1.21	-1.32	zinc finger protein 53
NM_016757	Wbp1	-1.03	-1.52	WW domain binding protein 1
NM_016925	Fanca	-1.05	-1.64	Fanconi anemia, complementation group A
NM_018769	Dfna5h	-2.44	-3.65	deafness, autosomal dominant 5
NM_019831	Zmym3	-1.66	-1.32	zinc finger, MYM-type 3
NM_020567	Gmnn	-1.43	-1.74	geminin, DNA replication inhibitor
NM_021406	Trem1	-1.38	-1.57	triggering receptor expressed on myeloid cells 1
NM_021424	Pvr1l	-1.09	-2.48	poliovirus receptor-related 1 (herpesvirus entry mediator C)
NM_023719	Txnip	-1.91	-1.75	thioredoxin interacting protein
NM_024184	Asf1b	-1.29	-1.32	ASF1 anti-silencing function 1 homolog B (S. cerevisiae)
NM_024223	Crip2	-1.47	-2.27	cysteine-rich protein 2
NM_025294	Gtlf3b	-1.17	-1.72	chromosome 17 open reading frame 103
NM_025491	Susd3	-1.86	-2.15	sushi domain containing 3
NM_025659	Abi3	-1.75	-1.68	ABI family, member 3
NM_026014	Cdt1	-1.55	-2.14	chromatin licensing and DNA replication factor 1
NM_026169	l200004M23Rik	-1.31	-1.8	FERM domain containing 8
NM_026178	Mmd	-1.33	-3.18	monocyte to macrophage differentiation-associated
NM_026436	Tmem86a	-1.97	-2.36	transmembrane protein 86A
NM_026555	Rcn3	-1.69	-1.44	reticulocalbin 3, EF-hand calcium binding domain
NM_026599	Cgnl1	-1.31	-2.16	cingulin-like 1
NM_026712	Zfp414	-1.24	-1.82	zinc finger protein 414
NM_027881	Osbpl3	-2.12	-2	oxysterol binding protein-like 3
NM_027987	Cd300lg	-1.77	-1.36	CD300 molecule-like family member g
NM_027995	Paqr7	-1.72	-1.47	progesterin and adipoQ receptor family member VII
NM_028055	l500005I02Rik	-2.18	-2.27	BTB (POZ) domain containing 17
NM_028724	Rin2	-1.52	-1.29	Ras and Rab interactor 2
NM_028760	Cep55	-1.03	-1.15	centrosomal protein 55kDa
NM_028833	Iqce	-1.29	-1.63	IQ motif containing E
NM_029091	Klc4	-1.58	-1.61	kinesin light chain 4
NM_029612	Slamf9	-1.03	-1.29	SLAM family member 9
NM_029766	Dtl	-1.49	-1.65	denticleless homolog (Drosophila)
NM_030244	Ier5l	-1.5	-1.26	immediate early response 5-like
NM_031257	Plekha2	-1.6	-1.66	pleckstrin homology domain containing, family A (phosphoinositide binding specific) member 2
NM_052976	Ophn1	-1.35	-1.53	oligophrenin 1
NM_053214	Myo1f	-1.39	-1.45	myosin IF
NM_133236	Glcc1	-1.31	-1.32	glucocorticoid induced transcript 1
NM_133910	Tbc1d14	-1.41	-1.68	TBC1 domain family, member 14
NM_134046	Cenpo	-1.29	-1.49	centromere protein O
NM_134083	Rcbbt2	-1.31	-1.4	regulator of chromosome condensation (RCC1) and BTB (POZ) domain containing protein 2

NM_139200	Pscdbp	-1.61	-2.43	cytohesin 1 interacting protein
NM_145220	Dip3b	-1.99	-1.45	adaptor protein, phosphotyrosine interaction, PH domain and leucine zipper containing 2
NM_145588	Kif22	-1.26	-1.36	kinesin family member 22
NM_145974	C330016O10Rik	-2.18	-3.54	Nedd4 binding protein 3
NM_146033	Ankmy2	-1.68	-1.91	ankyrin repeat and MYND domain containing 2
NM_148922	Mdm1	-1.64	-1.94	Mdm1 nuclear protein homolog (mouse)
NM_152801	Arhgef6	-1.48	-1.73	Rac/Cdc42 guanine nucleotide exchange factor (GEF) 6
NM_153138	Waspip	-1.85	-2.22	WAS/WASL interacting protein family, member 1
NM_153782	BC029169	-1.32	-1.76	family with sequence similarity 20, member A
NM_153804	Plekhg3	-2.27	-2.73	pleckstrin homology domain containing, family G (with RhoGef domain) member 3
NM_172051	Tmcc3	-2.13	-2.55	transmembrane and coiled-coil domain family 3
NM_172122	Crocc	-1.17	-2.2	ciliary rootlet coiled-coil, rootletin
NM_172286	6430548M08Rik	-2.17	-2.61	KIAA0513
NM_172500	4831426I19Rik	-1.22	-1.46	chromosome 14 open reading frame 49
NM_172570	Trim47	-1.85	-2.19	tripartite motif-containing 47
NM_172685	Slc25a24	-1.57	-2.22	solute carrier family 25 (mitochondrial carrier; phosphate carrier), member 24
NM_175433	Zfp710	-1.57	-2.11	zinc finger protein 710
NM_175476	Arhgap25	-2.51	-3.01	Rho GTPase activating protein 25
NM_176995	C230078M08Rik	-1.58	-2.1	neuralized homolog 1B (Drosophila)
NM_177089	Tacc1	-1.28	-1.8	transforming, acidic coiled-coil containing protein 1
NM_177231	Arrb1	-1.49	-1.97	arrestin, beta 1
NM_177260	Tmem154	-2.09	-2.84	transmembrane protein 154
NM_177372	Dna21	-1.65	-1.4	DNA replication helicase 2 homolog (yeast)
NM_178421	Nanos1	-1.48	-2.25	nanos homolog 1 (Drosophila)
NM_178593	Resd1	-1.57	-2.01	RCSD domain containing 1
NM_178683	Depdc1b	-1.68	-1.87	DEP domain containing 1B
NM_178917	Arrdc3	-1.8	-2	Unknown
NM_197986	1110007F12Rik	-2.37	-2.5	transmembrane protein 140
NM_197990	1700025G04Rik	-1.09	-1.4	chromosome 1 open reading frame 21
NM_198301	BC052328	-1.83	-1.62	family with sequence similarity 105, member A
NM_198671	Gse1	-1.55	-2.33	KIAA0182
NM_199018	Stard8	-1.73	-1.59	StAR-related lipid transfer (START) domain containing 8
NM_207246	Rasgrp3	-1.7	-1.56	RAS guanyl releasing protein 3 (calcium and DAG-regulated)
TC1516668	TC1516668	-2.77	-3.11	Unknown
TC1537769	TC1537769	-1.99	-2.15	Unknown
XM_001005196	LOC668856	-1.75	-2.32	Unknown
XM_899897	Cenpf	-1.19	-1.37	centromere protein F, 350/400kDa (mitosin)
XM_986527	Gna12	-1.24	-1.4	Unknown
XM_990990	LOC676546	-1.58	-3.18	similar to monocyte to macrophage differentiation-associated

A corrected one-way analysis of variance was used to analyze the microarray data. Genes whose expression levels changed by at least 2-fold or more up-regulated genes ( $P < 0.05$ ) as compared to unstimulated cells were considered to be differentially expressed in a statistically significant manner.