Table S3. Gene transcripts exclusively upregulated in macrophages stimulated with live *Borrelia burgdorferi* (Bb) at 4 h post-stimulation

Gene number	Annotation	Fold change Live Bb	Description/function
			Cytokine
NM_015766	Ebi3	2.24	Epstein-Barr virus induced gene 3
			Enzyme
NM_145572	Gys2	10.75	Glycogen synthase 2
NM_008102	Gch1	4.38	GTP cyclohydrolase 1
AK029069	Rnf139	3.98	Ring finger protein 139
AK039992	Rnd1	3.68	Rho family GTPase 1
NM_009457	Ube1x	3.68	Ubiquitin-activating enzyme E1, Chr X
AK159899	Hmgcr	3.14	3-hydroxy-3-methylglutaryl-Coenzyme A reductase
NM_015762	Txnrd1	3.1	Thioredoxin reductase 1
NM_013614	Odc1	2.36	Ornithine decarboxylase, structural 1
NM_001024468	Bcat1	2.35	Branched chain aminotransferase 1, cytosolic
NM_008715	Ints6	2.33	Integrator complex subunit 6
NM_145828	Xylt2	2.25	Xylosyltransferase II
NM_011637	Trex1	2.15	Three prime repair exonuclease 1
NM_023141	Tor3a	2.15	Torsin family 3, member A
			G-protein coupled receptor
NM_178701	Lrrc8d	3.17	Leucine rich repeat containing 8D
NM_175442	A630033H20Rik	2.87	RIKEN cDNA A630033H20 gene
NM_146736	Olfr491	2.79	Olfactory receptor 491
NM_010098	Opn3	2.77	Opsin (encephalopsin)
NM_207141	Olfr955	2.58	Olfactory receptor 955
NM_147035	Olfr711	2.42	Olfactory receptor 711
NM_146280	Olfr281	2.36	Olfactory receptor 281
NM_010130	Emr1	2.34	EGF-like module containing, mucin-like, hormone receptor-like sequence 1
			Growth factor
NM_009505	Vegfa	5.78	Vascular endothelial growth factor A
NM_011819	Gdf15	2.93	Growth differentiation factor 15
			Ion channel
NM_012035	Trpc7	9.46	Transient receptor potential cation channel, subfamily C, member 7
NM_027807	Cul5	4.86	Cullin 5
NM_010595	Kcna1	4.09	Potassium voltage-gated channel, shaker-related subfamily, member 1
NM_133199	Scn4a	2.92	Sodium channel, voltage-gated, type IV, alpha
			Kinase
NM_019827	Gsk3b	3.43	Glycogen synthase kinase 3 beta
AK079498	AK079498	2.51	NIMA (never in mitosis gene a)-related expressed kinase 7
NM_133232	Pfkfb3	2.5	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 3
NM_024182	Riok3	2.33	RIO kinase 3 (yeast)
NM_010879	Nck2	2.32	Non-catalytic region of tyrosine kinase adaptor protein 2
NM_028679	Irak3	2.3	Interleukin-1 receptor-associated kinase 3
			Ligand-dependent nuclear receptor

NM_008829	Pgr	2.31	Progesterone receptor
			Peptidase
AK147232	Lnpep	3.92	Leucyl/cystinyl aminopeptidase
AK033182	Usp34	3.16	Ubiquitin specific peptidase 34
NM_175225	Tasp1	2.85	Taspase, threonine aspartase 1
NM_019564	Htra1	2.68	HtrA serine peptidase 1
NM_145984	Prepl	2.46	Prolyl endopeptidase-like
			Phosphatase
NM_008976	Ptpn14	3.92	Protein tyrosine phosphatase, non-receptor type 14
AK078716	Eya3	2.36	Unknown
			Transcription regulator
NM_008052	Dtx1	11.07	Deltex 1 homolog (Drosophila)
NM_007674	Cdx4	7.43	Caudal type homeo box 4
NM_007548	Prdm1	4.78	PR domain containing 1, with ZNF domain
AK035176	Trerf1	4.76	Transcriptional regulating factor 1
NM_008266	Hoxb1	3.45	Homeo box B1
NM_153287	Axud1	3.29	AXIN1 up-regulated 1
BC069182	Trp73	2.98	Transformation related protein 73
NM_173868	St18	2.95	Suppression of tumorigenicity 18
NM_011018	Sqstm1	2.34	Sequestosome 1
NM_028152	Mms19l	2.18	MMS19 (MET18 S. cerevisiae)
NM_030887	Jundm2	2.17	Jun dimerization protein 2
			Transmembrane receptor
NM_030682	Tlr1	3.89	Toll-like receptor 1
NM_029770	Unc5b	2.89	Unc-5 homolog B (C. elegans)
AK028345	Opcml	2.47	Opioid binding protein/cell adhesion molecule-like
NM_011113	Plaur	2.36	Plasminogen activator, urokinase receptor
			Transporter
NM_011867	Slc26a4	3.42	Solute carrier family 26, member 4
NM_011990	Slc7a11	3.36	Solute carrier family 7 (cationic amino acid transporter, y+ system), member 11
NM_009682	Ap3s2	2.98	Adaptor-related protein complex 3, sigma 2 subunit
BC087942	Snx7	2.46	Sorting nexin 7
NM_007423	Afp	2.3	Alpha fetoprotein
AK081492	Atp6v1h	2.11	Unknown
			Others
AK042173	Pscdbp	13.33	Pleckstrin homology, Sec7 and coiled-coil domains, binding protein
NM_145827	Cias1	12.46	NLR family, pyrin domain containing 3
NM_019656	Tspan6	10.46	Tetraspanin 6
NM_153102	Zfp352	8.9	Zinc finger protein 352
NM_144827	Spata20	7.99	Spermatogenesis associated 20
AK047600	BC013529	7.44	unknown
NM_172991	C030048B08Rik	6.41	RIKEN cDNA C030048B08 gene
NM_182939	Ppp4r2	6.09	Protein phosphatase 4, regulatory subunit 2
NM_177056	A230078I05Rik	5.98	RIKEN cDNA A230078I05 gene

NM_011892	Sgcg	5.58	Sarcoglycan, gamma (dystrophin-associated glycoprotein)
AK053282	E130006N16Rik	5.17	RIKEN cDNA 1110051M20 gene
AK037746	Ywhaq	5.15	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, theta polypeptide
TC1488278	TC1488278	5.07	Unknown
AK007013	1700086D15Rik	5.04	RIKEN cDNA 1700086D15 gene
NM_011627	Tpbg	4.89	Trophoblast glycoprotein
NM_013473	Anxa8	4.76	Annexin A8
XM_910141	LOC635169	4.73	Unknown
AT_nX_3	AT_nX_3	4.63	Unknown
NM_027265	2810004A10Rik	4.61	Unknown
AK081811	C130078N14	4.55	Hypothetical protein C130078N14
NM_009251	Serpina3g	4.55	Serine (or cysteine) peptidase inhibitor, clade A, member 3G
XM_142262	Ptchd1	4.32	Unknown
NM_007392	Acta2	4.29	Actin, alpha 2, smooth muscle, aorta
AK014953	4921523P09Rik	4.2	RIKEN cDNA 4921523P09 gene
NM_144946	Neto1	3.96	Neuropilin (NRP) and tolloid (TLL)-like 1
NM_008729	Ctnnd2	3.94	Catenin (cadherin associated protein), delta 2
NM_001037917	LOC622976	3.86	Predicted gene, EG622976
NM_181318	Rasgef1b	3.81	RasGEF domain family, member 1B
BC100408	Smg5	3.68	Smg-5 homolog, nonsense mediated mRNA decay factor (C. elegans)
XM_976628	LOC665393	3.68	Unknown
AK086739	AK086739	3.67	15 days embryo head cDNA, RIKEN full-length enriched library, clone:D930048M01 product:unclassifiable, full insert sequence
NM_172295	BC037703	3.61	CDNA sequence BC037703
AK020741	A330107A15Rik	3.49	RIKEN cDNA A330107A15 gene
AK171368		3.46	Septin 11
XR_004086	LOC672982	3.44	Unknown
NM_009605	Adipoq	3.42	Adiponectin, C1Q and collagen domain containing
XM_899951	2600011C06Rik	3.41	Unknown
NM_001004167	LOC432637	3.39	Unknown
AK169480	Tinf2	3.33	Terf1 (TRF1)-interacting nuclear factor 2
NM_021399	Bcl11b	3.12	B-cell leukemia/lymphoma 11B
XM_203999	Rapgef2	3.11	Unknown
NM_010683	Lamc1	3.08	Laminin, gamma 1
NM_133823	Mmaa	3.08	Methylmalonic aciduria (cobalamin deficiency) type A
AK088871	Mbnl1	3.07	Unknown
AK042672	A430106J12Rik	3.01	Coiled coil domain containing 88A
NM_001024619	Lrrc54	3	Tsukushin
AK016009	Prr3	2.96	Proline-rich polypeptide 3
NM_144929	Rtbdn	2.94	Retbindin
NM_001001332	Stfa1	2.93	CDNA sequence BC1179090
NM_019992	AI586015	2.92	Signal transducing adaptor family member 1
AK054191	6720456B07Rik	2.89	Unknown
BI151098	BI151098	2.86	Inositol monophosphatase domain containing 1

AK005363	1500035N22Rik	2.83	RIKEN cDNA 1500035N22 gene
NM_025675	Atpbd4	2.83	ATP binding domain 4
NM_025697	6330409N04Rik	2.83	RIKEN cDNA 6330409N04 gene
TC1481003	TC1481003	2.82	Unknown
NM_011171	Procr	2.8	Protein C receptor, endothelial
AK146611	Krt78	2.77	Keratin 78
AK045156	AK045156	2.76	9.5 days embryo parthenogenote cDNA, RIKEN full-length enriched library, clone:B130041K03 product:unclassifiable, full insert sequence
NM_015790	Icosl	2.76	Icos ligand
AK082385	C230043N17Rik	2.73	Indoleamine-pyrrole 2,3 dioxygenase-like 1
NM_026253	Lrrc18	2.73	Leucine rich repeat containing 18
NM_031160	Arl4d	2.72	Unknown
NM_008331	Ifit1	2.7	Interferon-induced protein with tetratricopeptide repeats 1
NM_025753	4933425O20Rik	2.7	RIKEN cDNA 4933425O20 gene
NM_030097	1700034E13Rik	2.7	RIKEN cDNA 1700034E13 gene
TC1500867	TC1500867	2.68	Unknown
XM_990154	Flnb	2.62	Unknown
AK037428	AK037428	2.6	Unknown
NM_145950	BC010311	2.6	Oxidative stress induced growth inhibitor family member 2
NAP053909-1	NAP053909-1	2.59	Unknown
AK006004	1700015P03Rik	2.58	Unknown
NM_133739	Tmem123	2.52	Transmembrane protein 123
NM_028807	1200009I06Rik	2.49	RIKEN cDNA 1200009I06 gene
BU531328	BU531328	2.47	Transcribed locus
NM_011815	Fyb	2.46	FYN binding protein
XM_889501	LOC624957	2.46	Unknown
NM_027533	Tspan2	2.44	Tetraspanin 2
NM_024193	Nol5a	2.42	Nucleolar protein 5A
AK013833	Tob2	2.34	Unknown
AK020432	9430022A07Rik	2.33	Potassium large conductance calcium-activated channel, subfamily M, beta member 4
AK029900	4931432P07Rik	2.31	Unknown
X12388	X12388	2.31	Immunoglobulin heavy chain complex
NM_007380	Abi1	2.28	Abl-interactor 1
NM_008879	Lcp1	2.27	Lymphocyte cytosolic protein 1
AK013364	2810458H16Rik	2.19	Protection of telomeres 1B
NM_007534	Bcl2a1b	2.17	B-cell leukemia/lymphoma 2 related protein A1b
AK052945	D930001I22Rik	2.16	RIKEN cDNA D930001I22 gene
AK011873	Cct4	2.14	Chaperonin subunit 4 (delta)
NM_172290	Hnt	2.13	Neurotrimin
AK164516	Syncrip	2.11	Synaptotagmin binding, cytoplasmic RNA interacting protein
AK077970	Tbc1d9b	2.07	TBC1 domain family, member 9B
NM_011153	Gsbs	2.06	G substrate

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.