

**Selenoprotein MsrB1 promotes anti-inflammatory cytokine gene expression in macrophages and controls immune response *in vivo***

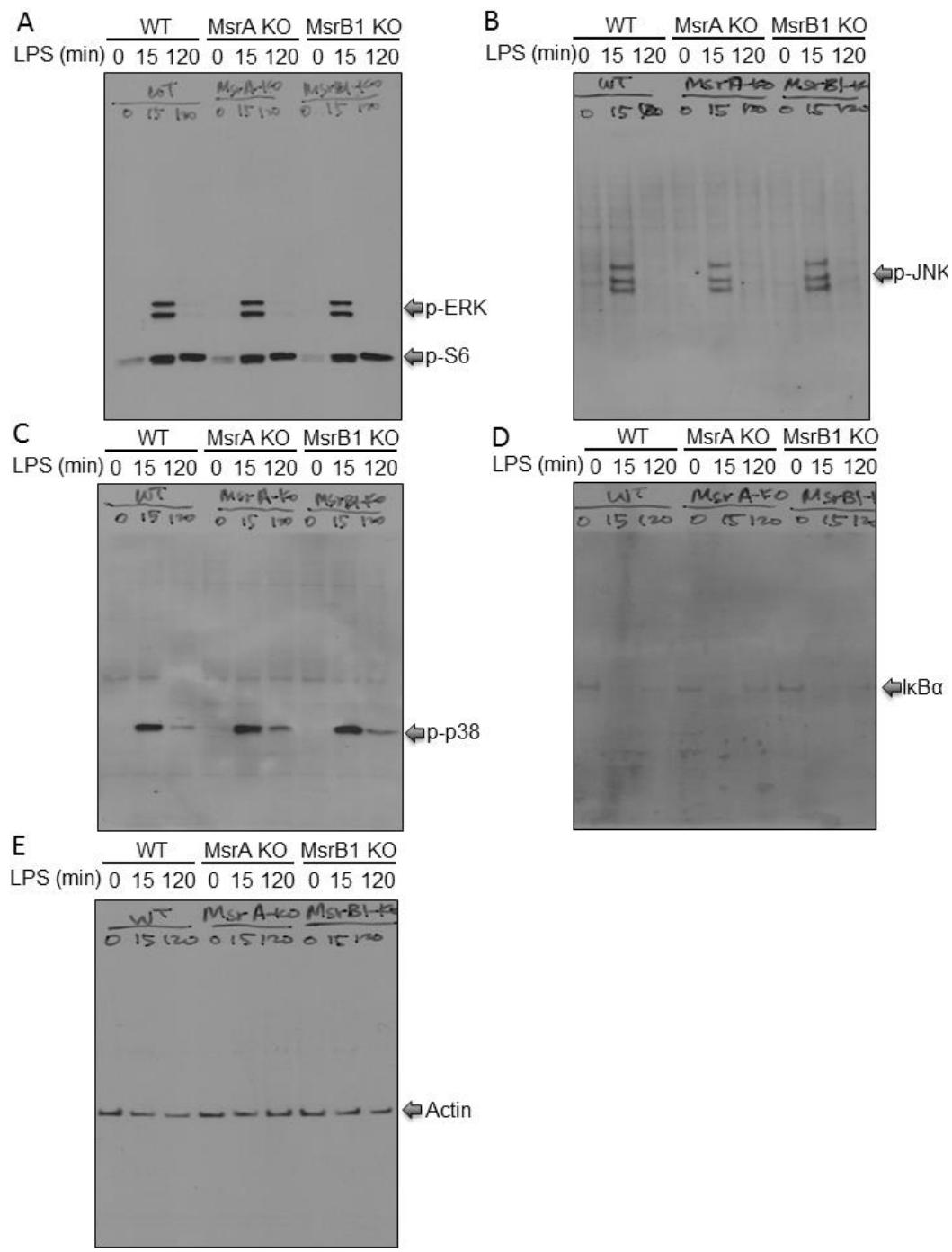
Byung Cheon Lee<sup>1</sup>, Sang-Goo Lee<sup>2</sup>, Min-Kyung Choo<sup>3</sup>, Ji Hyung Kim<sup>4</sup>, Hae Min Lee<sup>1</sup>, Sorah Kim<sup>1</sup>, Dmitri E. Fomenko<sup>5</sup>, Hwa-Young Kim<sup>6</sup>, Jin Mo Park<sup>3</sup>, and Vadim N. Gladyshev<sup>2</sup>

<sup>1</sup>College of Life Sciences and Biotechnology, Korea University, Seoul, 02841, South Korea;

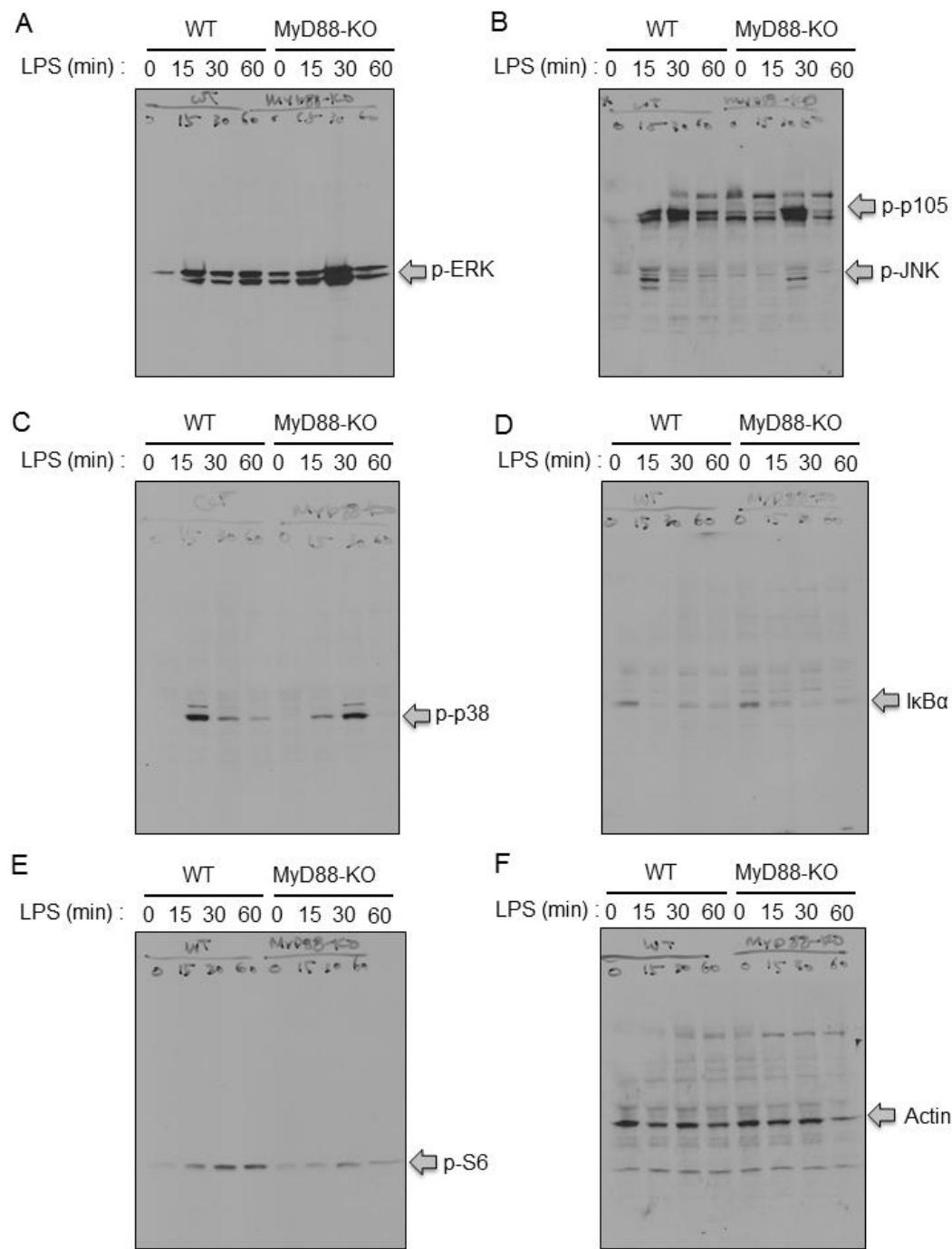
<sup>2</sup>Division of Genetics, Department of Medicine, Brigham & Women's Hospital and Harvard Medical School, Boston, MA 02115, USA; <sup>3</sup>Cutaneous Biology Research Center, Massachusetts General Hospital and Harvard Medical School, Charlestown, MA 02129, USA; <sup>4</sup>Program in Cellular and Molecular Medicine, Boston Children's Hospital, Department of Microbiology and Immunobiology, Harvard Medical School, Boston, MA 02115 USA; <sup>5</sup>Department of Biochemistry and Redox Biology Center, University of Nebraska, Lincoln, NE 68588, USA; <sup>6</sup>Department of Biochemistry and Molecular Biology, Yeungnam University College of Medicine, Daegu, 42415, South Korea

Table S1. Oligonucleotide primers used in qPCR.

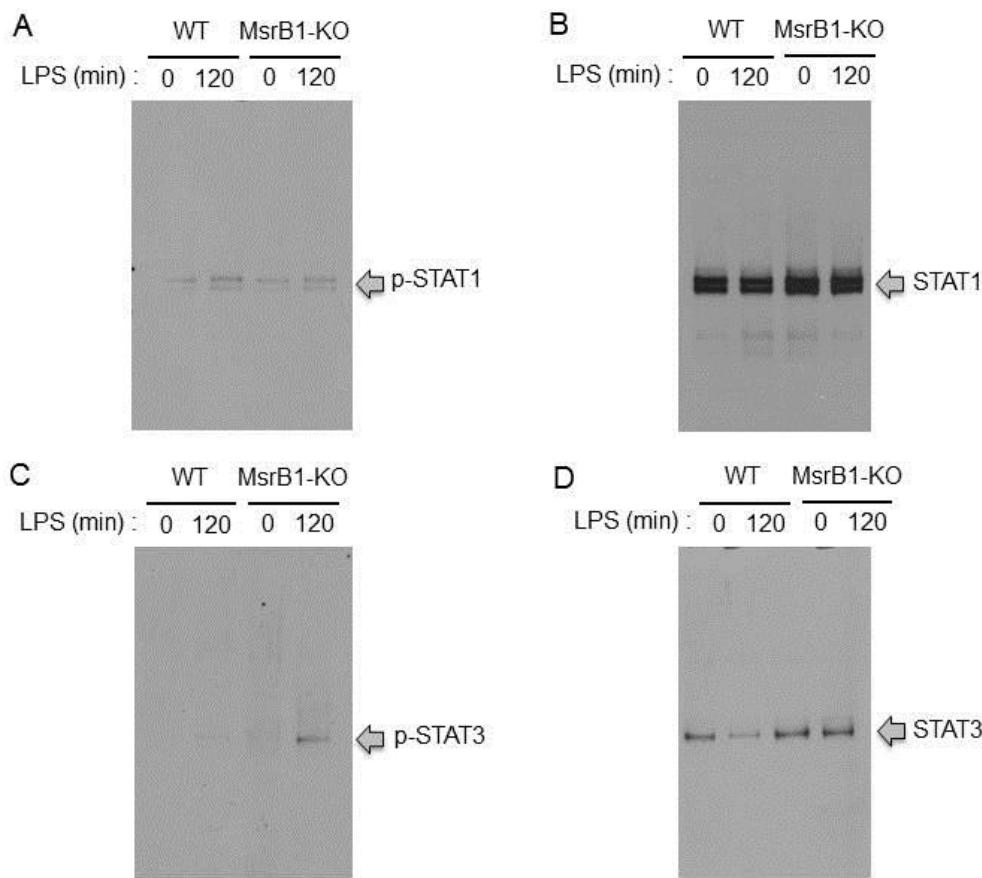
Gene	Forward primer (5' to 3')	Reverse primer (5' to 3')
<i>Ccl3</i>	ccaagtcttcagcgccat	tccggctgttaggagaagcag
<i>Ccl4</i>	gacttggaggtaactgagcagc	aggcctcctgaagtggc
<i>Ch25h</i>	ccacgacatgcatactctc	gcatttgcccagtgtgt
<i>Csf2</i>	ggccttggaaagcatgttagag	gcatgtcatccaggaggttc
<i>Cxcl1</i>	gccaatgagctgcgtgt	ccttcaagctctggatgtctg
<i>Cxcl2</i>	atccagagcttgagtgtgacgc	aaggcaaacttttgaccgcc
<i>Cxcl10</i>	gaatccggaatctaagaccatcaa	gtgcgtggcttactccagt
<i>Dusp1</i>	ccatctgccttgcttacctc	aagctgaagttcggggagat
<i>Edn1</i>	aaggcattttcgtgttgc	tttgtcgtcaacttctggtc
<i>Ifnb1</i>	cgtgggagatgtcctcaact	accttgccacccctccagtaa
<i>Il1a</i>	tccagggcagagagggagt	ggaactttggccatcttgattt
<i>Il1b</i>	gtggctgtggagaagctgt	gaaggcacgggaaagacac
<i>Il1rn</i>	ttacaaggaccaaataatcaaactagaag	ggatgccaagaacacactatg
<i>Il6</i>	ccagaaaccgctatgaagttcc	ttgtcaccagcatcagtccc
<i>Il10</i>	gaagctgaagaccctcagga	tttcacagggagaaatcg
<i>Il12a</i>	cagaaacctcctgtgggaga	ggagctcagatagcccatca
<i>Il12b</i>	atccagcgaagaaagaaaa	ggaacgcaccccttctggta
<i>Msrb1</i>	agcgttcaactgaaaccatcc	ttttctcaggcacttggc
<i>Nos2</i>	caagcaccccttggaaaggagg	ccaaatgtcgttgcaccac
<i>Ppia</i>	atggtcaaccccaccgtgt	ttcttgctgtttggaaactttgtc
<i>Ptgs2</i>	cccccacagtcaaagacact	ggttctcaggatgtgagga
<i>Tnf</i>	acagaaagcatgtccgcg	ccccccatctttggg



Supplementary Figure S1. Full-length image of western blot analysis. (A-E) All figures are full-length image of western blot analysis of ERK, JNK, p38, and S6 phosphorylation and IkB $\alpha$  degradation in WT, MsrA KO, and MsrB1 KO BMDMs after the indicated duration of LPS stimulation in Figure 2.



Supplementary Figure S2. Full-length image of western blot analysis. (A-F) All figures are full-length image of western blot analysis of ERK, JNK, p38, and S6 phosphorylation and I $\kappa$ B $\alpha$  degradation in WT and MyD88 KO BMDMs after the indicated duration of LPS stimulation in Figure 2.



Supplementary Figure S3. Full-length image of western blot analysis. (A-D) All panels are full images representing western blot analysis of STAT1 and STAT3 phosphorylation in WT and MsrB1 KO BMDMs after the indicated duration of LPS stimulation (Figure 6C).