

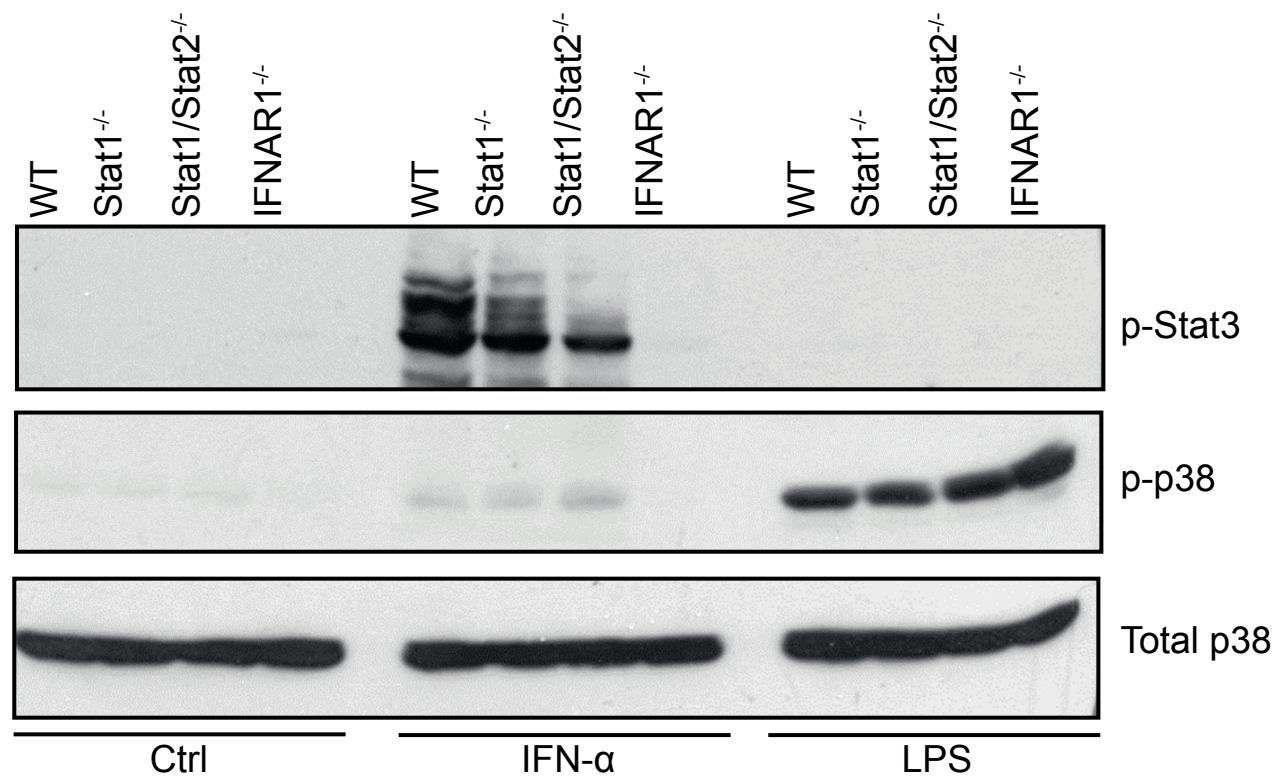
**Table S1** List of primers and oligonucleotides

PCR	Mu-IFN- $\beta$	Forward 5' AAC TCC ACC AGC AGA CAG TG 3' Reverse 5' GTG GAG AGC AGT TGA GGA CA 3'
	Mu-iNOS	Forward 5' GCT CCT CAC TGG GAC AGC AC 3' Reverse 5' GCT TGT CTC TGG GTC CTC TG 3'
	GAPDH	Forward 5' ACC CAG AAG ACT GTG GAT GG 3' Reverse 5' GCC TCT CTT GCT CAG TGT CC 3'
	Mu-Mx-1A	Forward 5' AAG ATG GTC CAA ACT GCC TTC G 3' (Fig. 4) Reverse 5' GCC TTG GTC TTC TCT TTC TCA GC 3'
		Forward 5' GACTACCACTGAGATGACCCAGC 3' (Figs. 2 & S3) Reverse 5' ATTCCTCCCCAAATGTTTTCA 3'
	Mu-ISG15	Forward 5' CCT GGG ACC TAA AGG TGA AGA TG 3' (Fig. 4) Reverse 5' AGC CGG CAC ACC AAT CTT CTG 3'
		Forward 5' ATGGCCTGGGACCTAAAG 3' (Figs. 2 & S3) Reverse 5' TTAGGCACACTGGTCCCC 3'
	Mu-Dusp1	Forward 5' GGATATGAAGCGTTTTTCGGCT 3' Reverse 5' GGATTCTGCACTGTCAGGCA 3'
	Mu-Dusp2	Forward 5' AGCTTCCCCAGGAGTCAGT 3' Reverse 5' GATTCAGAGCCACCGGTAC 3'
	Mu-Ddx58	Forward 5' GAAGAGCCAGAGTGTCAGAATC 3' Reverse 5' AGCTCCAGTTGGTAATTTCTTGG 3'
	Mu-Ifit2	Forward 5' GGAGAGCAATCTGCGACAG-3' Reverse 5' GCTGCCTCATTTAGACCTCTG-3'
	Mu-Ifit3	Forward 5' CCTCGCAGCCCTGGAGTGTT 3' Reverse 5' TGC GTTGCCTCCCAAACCCC 3'
	Mu-Socs1	Forward 5' ACT CAC TTC CGC ACC TTC C 3' Reverse 5' AAG CAG TTC CGT TGG CGA C 3'
	Mu-Stat1	Forward 5' GCTGCCTATGATGTCTCGTTT 3' Reverse 5' TGCTTTTCCGTATGTTGTGCT 3'
	Mu-IRF1	Forward 5' CCGAAGACCTTATGAAGCTCTTTG 3' Reverse 5' GCAAGTATCCCTTGCCATCG 3'
	Mu-Stat2	Forward 5' TCCTGCCAATGGACGTTTCG 3' Reverse 5' GTCCCACTGGTTCAGTTGGT 3'
	Mu-IRF9	Forward 5' CCCTGCAACTCAGACCAGTGG-3' Reverse 5' CAGGGCCTGAGCCGCTGAA-3'
	Mu-ADAR	Forward 5' TGAGCATAGCAAGTGGAGATACC 3' Reverse 5' GCCGCCCTTTGAGAACTCT 3'
	Mu-Bst2	Forward 5' TGTAGAGACGGTTGCGAG 3' Reverse 5' CAGGGACTCCTGAAGGGTC 3'
	Mu-Oas2	Forward 5' AACCTCACACCCAACGAAAA 3' Reverse 5' CCACCCTTAGCCACTTCTC 3'
Mu-GAPDH	Forward 5' CATGGCCTTCCGTGTTCTTA 3' Reverse 5' GCGGCACGTCAGATCCA 3'	
Mu- $\beta$ -actin	Forward 5' GCT CCT CCT GAG CGC AAG T 3' Reverse 5' TCG TCA TAC TCC TGC TTG CTG AT 3'	
EMSA	dsOAS-ISRE <sub>full</sub>	5' agct TCTGAG GAAAC GAAAC CAACAG 3'
	dsOAS-ISRE <sub>blunt</sub>	5' CT TCTGAG GAAAC GAAAC CAACAG AG 3'

<b>ChIP</b>	Mu-Mx-1A	Forward 5' AAG ATG GTC CAA ACT GCC TTC G 3' Reverse 5' GCC TTG GTC TTC TCT TTC TCA GC 3'
	Mu-ISG15	Forward 5' CCT GGG ACC TAA AGG TGA AGA TG 3' Reverse 5' AGC CGG CAC ACC AAT CTT CTG 3'
<b>shRNA</b>	IRF-9	5' TGCTGTTGAC AGTGAGCGCC CAGGATGCTG CCATATTC AA TAGTGAAGCC ACAGATGTAT TGAATATGGC AGCATCCTGG TTGCCTACTGC CTCGGA-3'

This table details the sequences of the primers used in PCR, Q-PCR, EMSA, ChIP and shRNA studies.

A



B

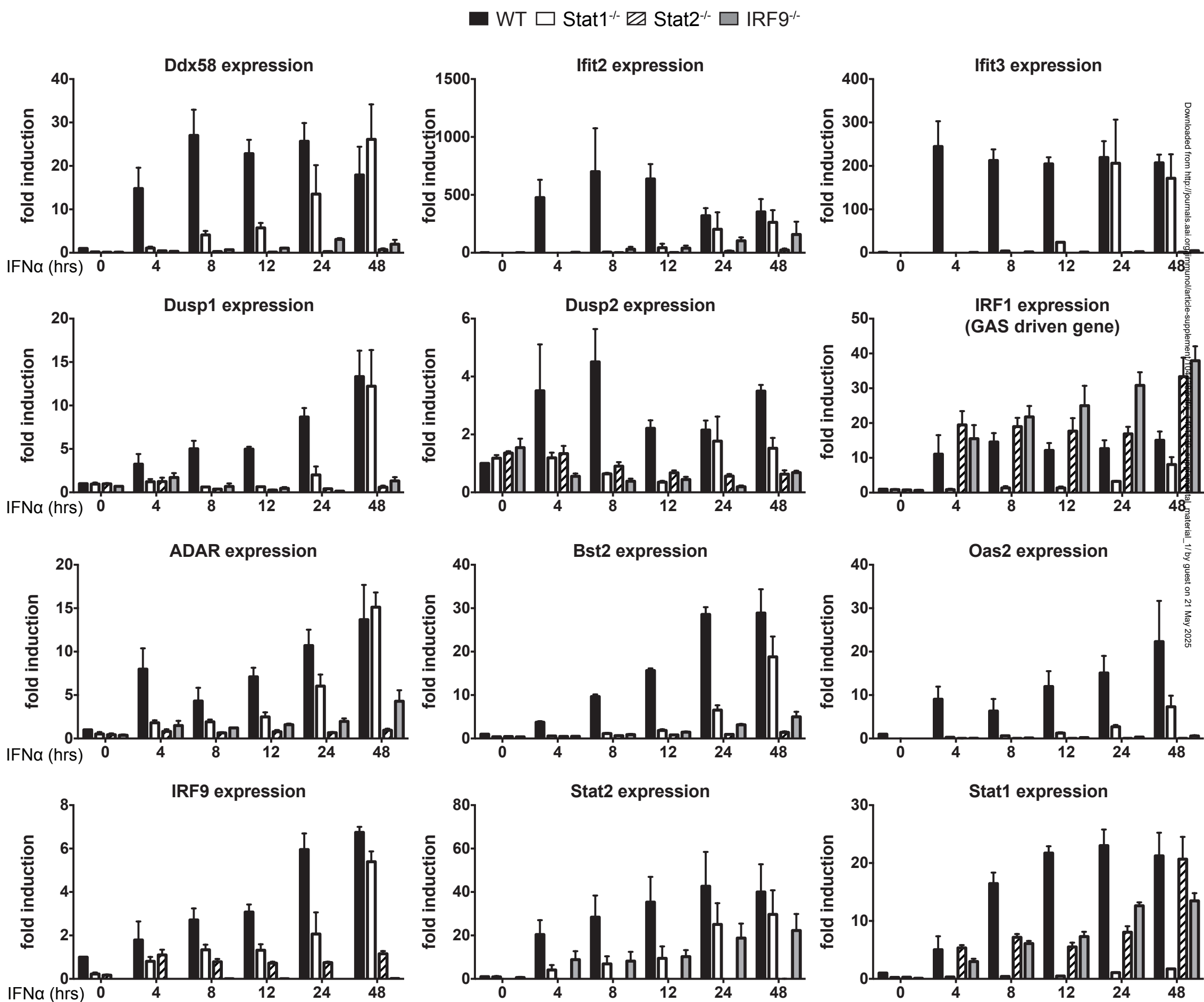


Figure S1 IFN-I response in wild type, STAT and IRF9 deficient BMMs

(A) Activation of Stat3 and p38 was evaluated in IFN- $\alpha$ /D (1,000 U/ml) or LPS (1  $\mu$ g/ml) stimulated BMMs prepared from WT, Stat1<sup>-/-</sup>, Stat1<sup>-/-</sup>/Stat2<sup>-/-</sup> and IFNAR1<sup>-/-</sup> mice in the 129 background (see Fig. 2; [12]) and immunoblotted for phospho-Stat3 (Cell Signaling), p38 (Cell Signaling) or phospho-p38 (Cell Signaling), as per manufacturer.

(B) The kinetics of IFN- $\alpha$ /D (1000 U/ml) and IFN- $\beta$  (250 U/ml) dependent ISG (ISRE and GAS-driven as indicated) expression was evaluated by Q-PCR in C57Bl/6J (WT), Stat1<sup>-/-</sup>, Stat2<sup>-/-</sup> and IRF9<sup>-/-</sup> BMMs, as detailed in Figure 2 (for primers see Table S1). Studies are representative of three independent experiments.

Figure S2 (Abdul-Sater, et al.)

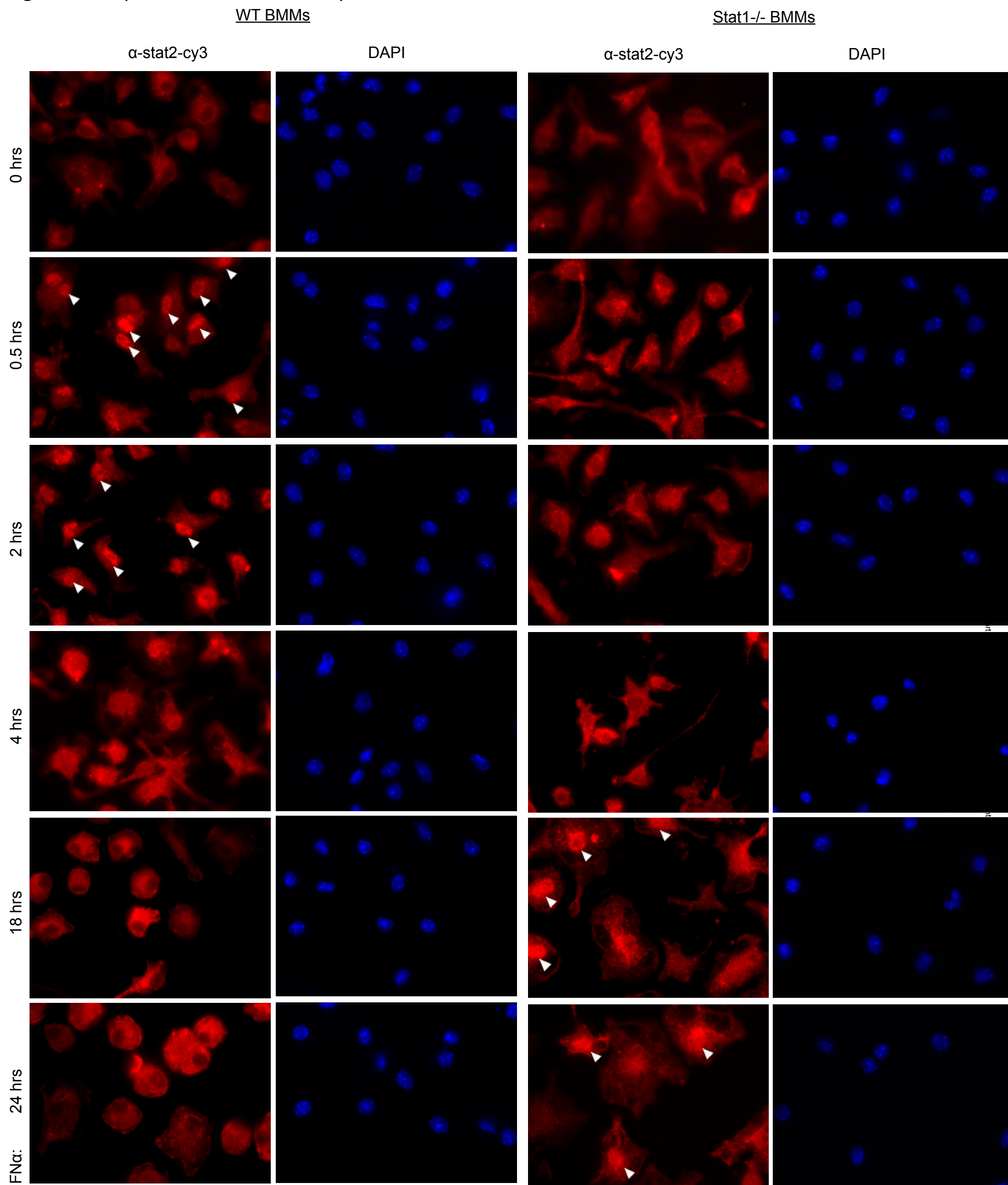
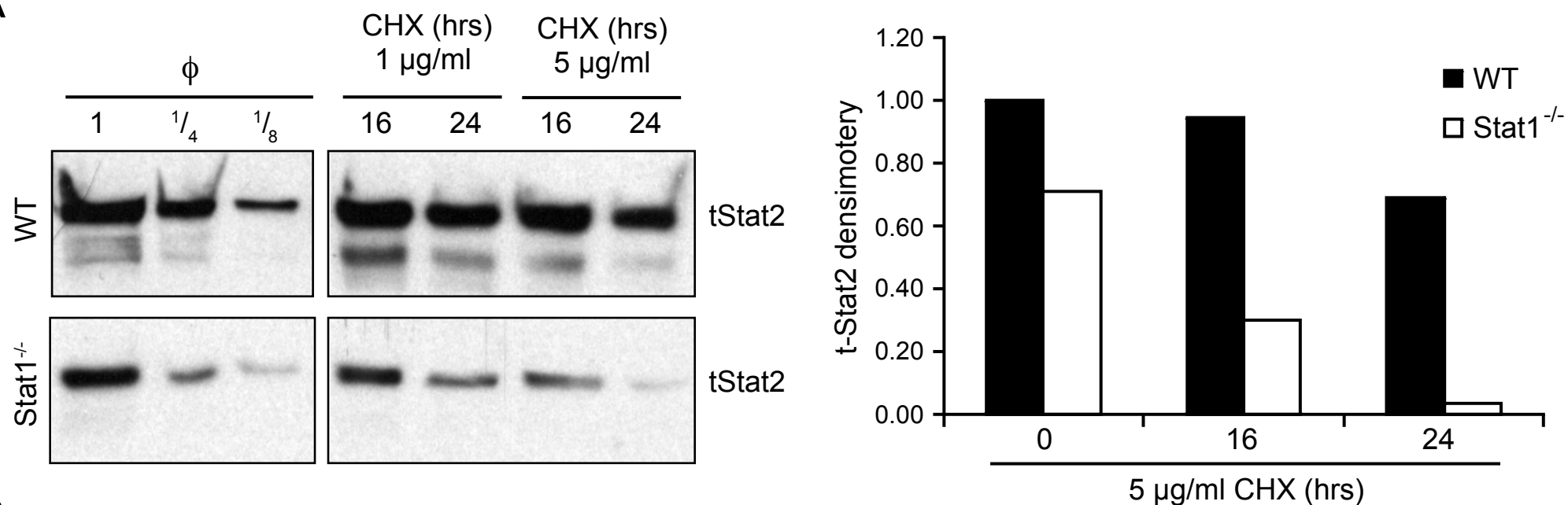


Figure S2 Nuclear localization of Stat2 is delayed in Stat1<sup>-/-</sup> BMMs

Day 6 C57Bl/6J (WT) and age-matched Stat1<sup>-/-</sup> BMMs were seeded on coverslips, stimulated with IFN- $\alpha$  A/D (1000 U/ml; 0.5, 2, 4, 18 and 24 hrs), fixed (4% paraformaldehyde, 10 min), permeabilized (0.2% Triton X-100) and stained with Stat2-specific antibody (1:2500 in 3% BSA-TBST; 1 hr), followed by cy3-conjugated (red) secondary antibody (0.1  $\mu$ g/ml anti-rabbit, 1h; Jackson ImmunoResearch Laboratories; West Grove, PA). Nuclei were counterstained with DAPI (blue; Invitrogen) and visualized with Zeiss microscope (Axio Imager M2), captured by AxioCam MRc, and analyzed with AxioVision LE software. Studies are representative of three independent replicates. White arrows highlight nuclear accumulation of Stat2

Figure S3 (Abdul-Sater, et al.)

A



B

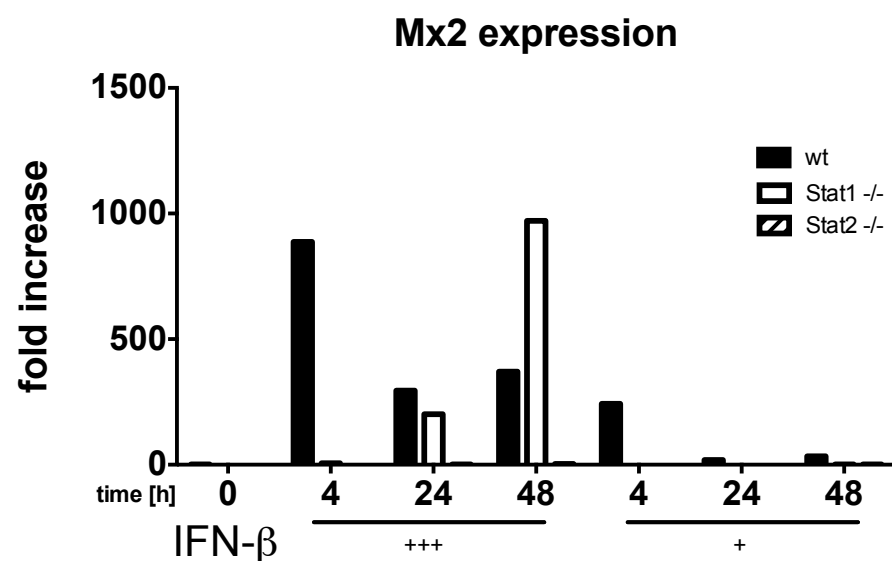
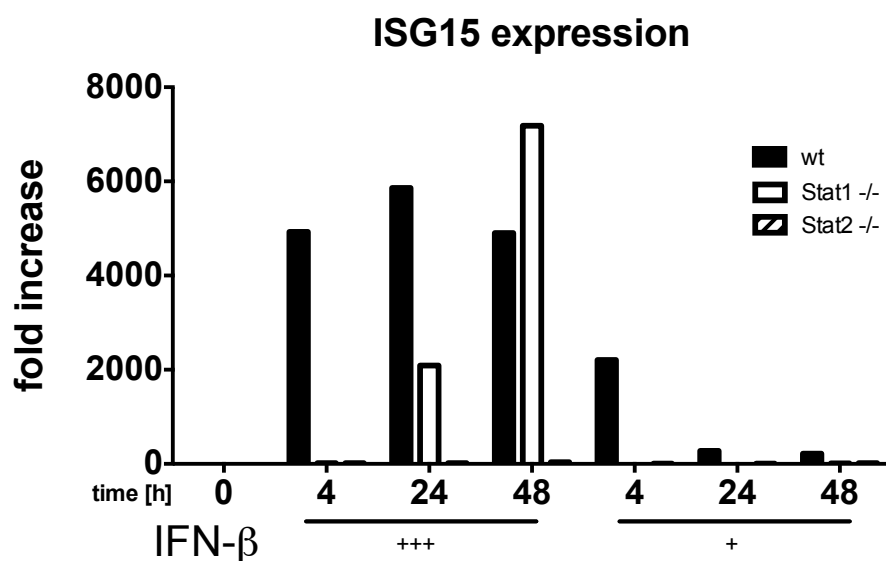
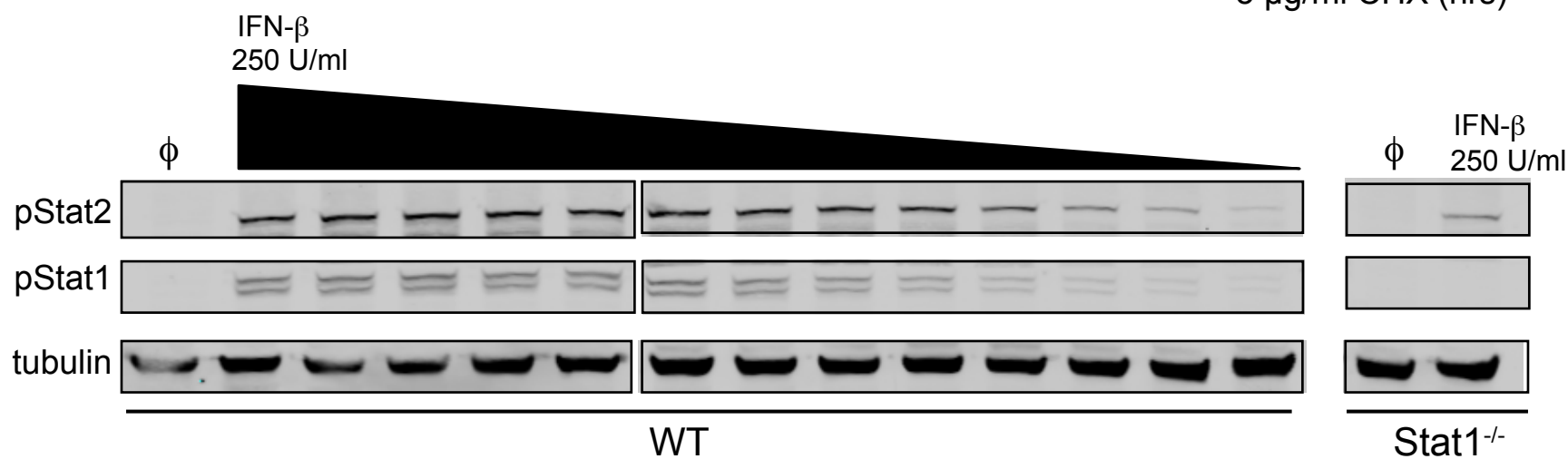


Figure S3 Stat2 stability and IFN-I dose-response titration

(A) WCEs, prepared from day 6 C57Bl/6J (WT) and Stat1<sup>-/-</sup> BMMs treated with cycloheximide (CHX; 5 µg/ml, 16 or 24 hrs), diluted 1:4 and 1:8, were immunoblotted for Stat2, as in Figure 5 (left panel). Band intensities were quantified by Scion Image software (National Institutes of Health, Bethesda, MD, USA; right panel). Studies are representative of two independent replicates.

(B) A dose-response for IFN-I dependent Stat1 and Stat2 phosphorylation in C57Bl/6J and Stat1<sup>-/-</sup> BMMs. Extracts were prepared from C57Bl/6J (WT) BMMs treated with IFN-β (250 U/ml to 0.06 U/ml; 0.5 hrs), or Stat1<sup>-/-</sup> BMMs stimulated with 250 U/ml of IFN-β (0.5h), and evaluated by immunoblotting, as detailed in Figure 2. C57Bl/6J BMMs stimulated with 0.24 U/ml of IFN-β gave the equivalent level of phospho-Stat2 as Stat1<sup>-/-</sup> BMMs stimulated with 250 U/ml of IFN-β. Subsequent studies evaluated the expression profiles for Mx1 and ISG-15 in RNA prepared from C57Bl/6J, Stat1<sup>-/-</sup> and Stat2<sup>-/-</sup> BMMs stimulated either with 0.24 U/ml (+) or 250 U/ml (+++) of IFN-β as indicated.