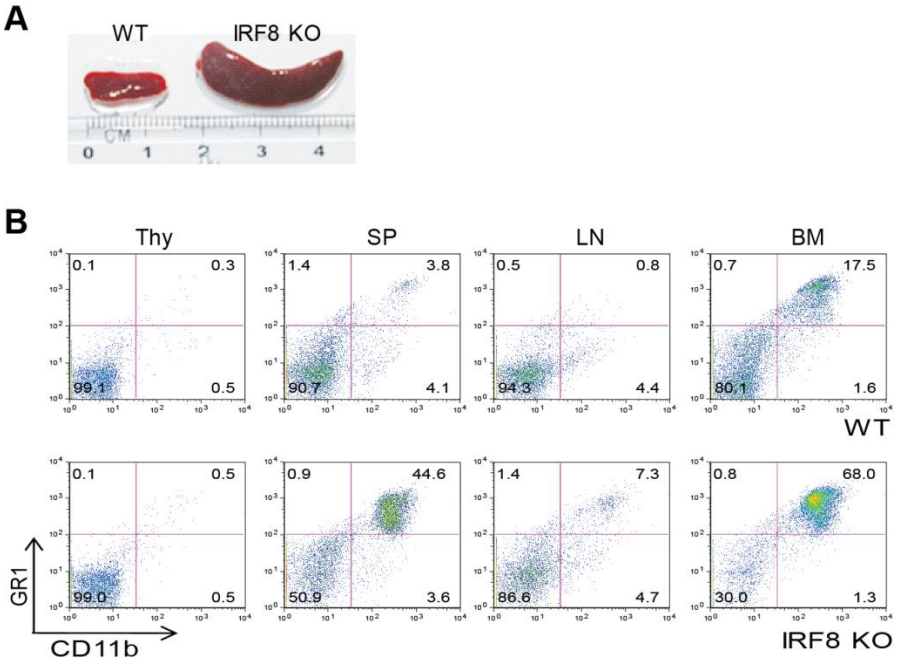
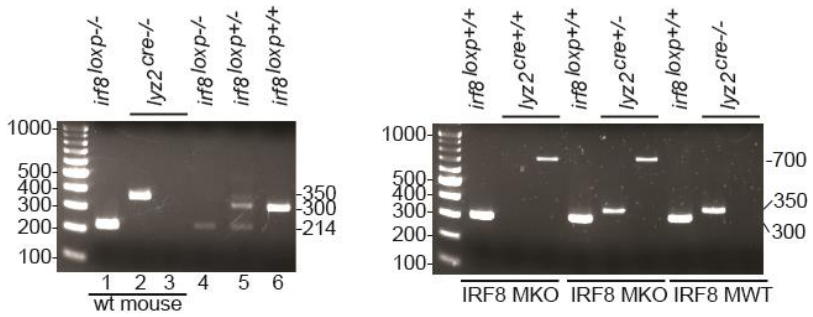
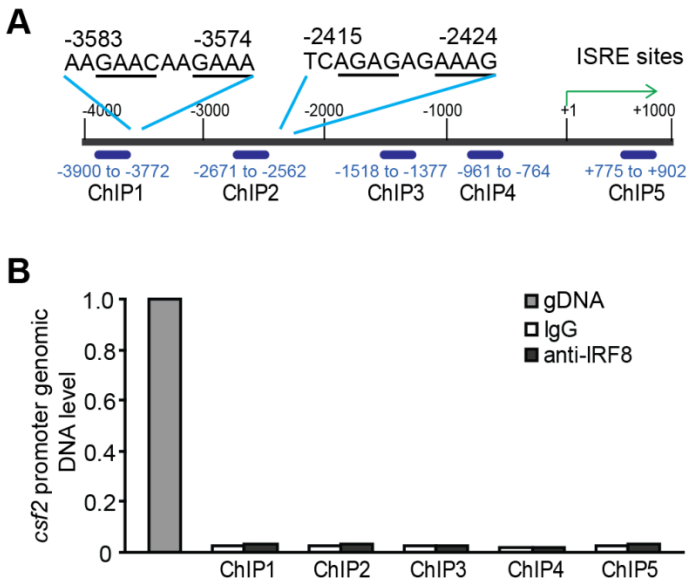


Supplemental Figure 1. Mice with a null mutation of *irf8* exhibit accumulation of CD11b^{+}Gr1^{+} MDSCs. **A**. Spleen morphology of wt and IRF8 KO mice (3 months of age). Shown are representative images from one pair of wt and IRF8 KO mice of three pairs of mice. **B**. CD11b^{+}Gr1^{+} MDSC profiles in thymus, spleen, lymph nodes and bone marrow. Cells were collected from the indicated tissues, and stained with CD11b- and Gr1-specific mAbs. Isotype control mAbs were used as negative controls. Shown are representative results from one pair of mice of three pairs of wt and IRF8 KO mice.



Supplemental Figure 2. Genotypes of wt and IRF8 MKO mice. PCR banding patterns of mice with the indicated genotypes. PCR primer sequences and genotyping protocols are according to the Jackson Laboratory.



Supplemental Figure 3. **A**. The mouse GM-CSF gene (*csf2*) promoter structure showing the region of -4000 to +1000 relative to the transcription initiation site (black bar). The putative ISRE consensus sequences and locations are indicated at the top of the bar. The PCR-amplified genomic DNA regions for each of the five ChIP PCR primer pairs are indicated (short blue bars). **B**. CD4+ T cells were isolated by negative selection. The cells were stimulated with anti-CD3 and anti-CD28 mAbs for 3 days and analyzed by chromatin immunoprecipitation (ChIP) using goat IgG or anti-IRF8 antibody (C-19, Santa Cruz). The immunoprecipitated genomic DNA was analyzed by real-time PCR using the mouse genomic DNA (gDNA, 2ng) as a positive control. Shown are representative results from one of four independent experiments.

Supplemental Table 1: PCR Primer Sequences

Gene	Use		Sequence
IP-1α	RT-PCR	Forward	5'-GCTGTTTGCTGCCAAGTAGCC-3'
		Reverse	5'-TGACCAACTGGGAGGGAGATGG-3'
IP10	RT-PCR	Forward	5'-TCTCTCCATCACTCCCCTTTACC-3'
		Reverse	5'-CTTGCTTCGGCAGTTACTTTTGTC-3'
iNOS	RT-PCR	Forward	5'-TTGGGGAGACAGCGAAATGC-3'
		Reverse	5'-GGAGTGGAGAAGAAGGGAGGAAAG-3'
IL12p40	RT-PCR	Forward	5'-GAGACCCTGCCCATTGAACTG-3'
		Reverse	5'-GGAACGCACCTTTCTGGTTACAC-3'
IRF8	RT-PCR	Forward	5'-CGTGGAAGACGAGGTTACGCTG-3'
		Reverse	5'-GCTGAATGGTGTGTGTCATAGGC-3'
IRF8mt	RT-PCR	Forward	5'-GCGCGGGCAGCGTGGGAACCGGCG-3'
		Reverse	5'-GTCACTTCTTCAAAATCTGGGCTC-3'
GM-CSF	ChIP1 PCR	Forward	5'-CTTCTCCCCTCATTTCTCCTTTG-3'
		Reverse	5'-TGCCCCAAGCCTTATCTCCAAC-3'
GM-CSF	ChIP2 PCR	Forward	5'-GCTCTTCTGCCAGGTTAGGACTTC-3
		Reverse	5'-GATGGATGCTGTATCTGTTGTTGG-3
GM-CSF	ChIP3 PCR	Forward	5'-CCCTCACTTCTGTCTGGTTTCATC-3'
		Reverse	5'-CACTTGTTTTGCCTGCTTTGTG-3'
GM-CSF	ChIP4 PCR	Forward	5'-TGTGTGCGTGCCTGGTTATTG-3'
		Reverse	5'-TTGACTGCTGATTCTGCCCTCC-3
GM-CSF	ChIP5 PCR	Forward	5'-GCTTTTGAAATAGTGCTTCCCCAC-3
		Reverse	5'-TTCCCAGTTCCAAGTGCTGTCC-3
GM-CSF	RT-PCR	Forward	5'- AAACACAAGTTACCACCTATGCGG -3
		Reverse	5'- TCCAAGTTCCTGGCTCATTACG -3
β-Actin	RT-PCR	Forward	5'-CTGGCACCACACCTTCTACAATG-3'
		Reverse	5'-GGGTCATCTTTTCACGGTTGG-3'