

## Product datasheet for MC216147

### Irf7 (NM\_016850) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Irf7 (NM_016850) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Irf7
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC216147 representing NM_016850 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGAAGTGAGGGGGTCCAGCGAGTCTGTTGGAGACTGGCTATTGGGGAGGTGAGCAGCGGCC  
AGTACGAGGGGCTGCAGTGGCTGAACGAGGCTCGCACAGTCTCCGCGTACCCTGGAAGCATTTCGCTCG  
TAGGGATCTGGATGAAGAAGATGCACAGATCTCAAGGCTGGGCTGTGGCCGAGGGAGGTGGCCACCT  
AGTGGAGTTAACCTGCCACCCAGAGGCTGAGGCTGCTGAGCGAAGAGAGCGAAGAGGCTGGAAGACCA  
ACTTCCGCTGTGCACTCCACAGCACAGGGCGTTTTATCTTGCGCAAGACAATTCAGGGATCCAGTTGA  
TCCGCATAAGGTGTACGAACTTAGCCGGGAGCTTGGATCTACTGTGGGCCAGCCACGAAAAATAGGGAA  
GAAGTGAGCCTCAGCAATGCTCTGCCACACAGGGTGTGTCCCCAGGATCATTCTGGCAAGAGAAAAATG  
CTGGGCTCCAACCCCAAGCCCTCTGCTTTCTAGTGATGCCGGGACCTTTGCTTCAGGTTCTGCAGTA  
CAGCCACATACTGGAATCCGAGTCTGGGGCAGACCCCGTCCCACCACAGGCTCCTGGCCAGGAGCAAGAC  
CGTGTTCAGGAAACCCTATGCAGCATGGCAGGTGGAAGCTGTCCCAGTCCCAGGCCCAACAGCCAG  
CTCTCACCGAGCGCAGCCTTGGGTTCTGGATGTGACCATCATGTACAAGGGCCGCAGTGCTACAGGC  
AGTGGTGGGGCACCCAGATGCGTGTTCCTGTACAGCCCATGGCCCCAGCAGTAAGAATTCAGAGCCC  
CAGCCGGTGATCTTCCAGTCTGCTGAGCTCCCAGATCAGAAGCAGCTGCACTACACAGAGACGCTTC  
TCCAGCATGTGTCTCCGGCCTTCACTGGAGCTTCGAGGACCGTCACTGTGGGCCCTGCGTATGGGCAA  
GTGCAAGGTGACTGGGAGGTAGGCAGCCCTATGGGCACTACCGGCCCTCCACCCACCCAGCTGCTG  
GAGCGAACCGCCACACCCCATCTTCCGACTTCAGCACTTTCTCCGAGAAGTGGAGGAGTTTCGGGCTC  
GGAGGCGCAAGGGTCAACCACTACACCATCTACCTGGGTTTTGGCAAGACTTGTGAGGAGGAGGCC  
CAAGGAGAAGACCCTGATCCTGGTGAAGCTGGAGCCATGGGTATGCAAGGCATACCTGGAGGGCGTGCAG  
CGTGAGGTTGTCTCCTCCCTGGACAGCAGCAGTCTCGGCTTGTGCTGTAGCACCAACAGTCTCTACG  
AAGACATCGAACACTTCCATGGACCTGGGTCACTGGCC**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_016850
<b>Insert Size:</b>	1374 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_016850.3</a></u> , <u><a href="#">NP_058546.1</a></u>
<b>RefSeq Size:</b>	1876 bp
<b>RefSeq ORF:</b>	1374 bp
<b>Locus ID:</b>	54123
<b>UniProt ID:</b>	<u><a href="#">P70434</a></u>
<b>Cytogenetics:</b>	7 F5

**Gene Summary:**

Key transcriptional regulator of type I interferon (IFN)-dependent immune responses and plays a critical role in the innate immune response against DNA and RNA viruses (PubMed:27129230). Regulates the transcription of type I IFN genes (IFN-alpha and IFN-beta) and IFN-stimulated genes (ISG) by binding to an interferon-stimulated response element (ISRE) in their promoters. Can efficiently activate both the IFN-beta (IFNB) and the IFN-alpha (IFNA) genes and mediate their induction via both the virus-activated, MyD88-independent pathway and the TLR-activated, MyD88-dependent pathway. Induces transcription of ubiquitin hydrolase USP25 mRNA in response to lipopolysaccharide (LPS) or viral infection in a type I IFN-dependent manner (PubMed:27129230). Required during both the early and late phases of the IFN gene induction but is more critical for the late than for the early phase. Exists in an inactive form in the cytoplasm of uninfected cells and following viral infection, double-stranded RNA (dsRNA), or toll-like receptor (TLR) signaling, becomes phosphorylated by IKBKE and TBK1 kinases. This induces a conformational change, leading to its dimerization and nuclear localization where along with other coactivators it can activate transcription of the type I IFN and ISG genes. Can also play a role in regulating adaptive immune responses by inducing PSMB9/LMP2 expression, either directly or through induction of IRF1. Binds to the Q promoter (Qp) of EBV nuclear antigen 1 a (EBNA1) and may play a role in the regulation of EBV latency. Can activate distinct gene expression programs in macrophages and regulate the anti-tumor properties of primary macrophages.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longest transcript and it encodes the longest protein (isoform 1).