

Product datasheet for **MR225814**

Irf7 (NM_016850) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Irf7 (NM_016850) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Irf7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225814 representing NM_016850
 Red=Cloning site Blue=ORF Green=Tags(s)

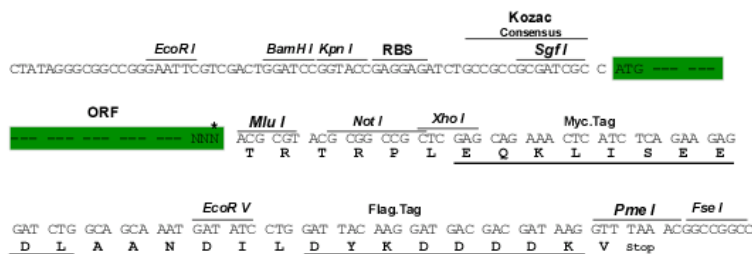
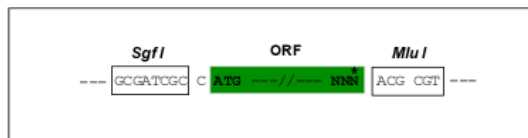
CTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTGAAGTGAGGGGGTCCAGCGAGTCTGTTTGGAGACTGGCTATTGGGGAGGTCAGCAGCGGCC
 AGTACGAGGGGCTGCAGTGGCTGAACGAGGCTCGCACAGTCTCCGCGTACCCTGGAAGCATTTCGGTCG
 TAGGGATCTGGATGAAGAAGATGCACAGATCTTCAAGGCCTGGGCTGTGGCCGAGGGAGGTGGCCACCT
 AGTGGAGTTAACCTGCCACCCAGAGGCTGAGGCTGCTGAGCGAAGAGAGCGAAGAGGCTGGAAGACCA
 ACTTCCGCTGTGCACTCCACAGCACAGGGCGTTTTATCTTGCGCCAAGACAATTCAGGGGATCCAGTTGA
 TCCGCATAAGGTGTACGAACTTAGCCGGGAGCTTGGATCTACTGTGGGCCAGCCACGAAAATAGGGAA
 GAAGTGAAGCTCAGCAATGCTCTGCCACACAGGGTGTGTCCCAGGATCATTCTGGCAAGAGAAAATG
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 CGTGTTTACGAGGAACCCATGACAGCATGGCAGGTGGAAGCTGTCCCAGTCCCAGGCCTCAACAGCCAG
 CTCTCACCAGGCGCAGCCTTGGGTTCTGGATGTGACCATCATGTACAAGGGCCGACAGTGCTACAGGC
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 GGAGGCGCAAGGGTACCACACTACACCATCTACCTGGGTTTTGGCAAGACTGTGTCAGAGGGAGGCC
 CAAGGAGAAGACCCCTGATCCTGGTGAAGCTGGAGCCATGGGTATGCAAGGCATACCTGGAGGGCTGCAG
 CGTGAGGGTGTGTCTCCTGGACAGCAGCAGTCTCGGCTTGTGCTGTCTAGCACAACAGTCTCTACG
 AAGACATCGAACCTTCTCATGGACTGGGTCAGTGGCCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:
SgfI-MluI
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN:

NM_016850

ORF Size:

1371 bp

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	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).
Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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.
RefSeq:	NM_016850.3 , NP_058546.1
RefSeq Size:	1830 bp
RefSeq ORF:	1374 bp
Locus ID:	54123
UniProt ID:	P70434
Cytogenetics:	7 F5
MW:	51.7 kDa

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]

Product images:


Circular map for MR225814