

Product datasheet for **MG225814**

Irf7 (NM_016850) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Irf7 (NM_016850) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Irf7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG225814 representing NM_016850 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGAAGTGAGGGGGTCCAGCGAGTGCTGTTGGAGACTGGCTATTGGGGAGGTCAGCAGCGGCC
AGTACGAGGGGCTGCAGTGGCTGAACGAGGCTCGCACAGTCTTCCGCGTACCCTGGAAGCATTTCGGTCCG
TAGGGATCTGGATGAAGAAGATGCACAGATCTTCAAGGCTGGGCTGTGGCCGAGGGAGGTGGCCACCT
AGTGGAGTTAACCTGCCACCCAGAGGCTGAGGCTGCTGAGCGAAGAGAGCGAAGAGGCTGGAAGACCA
ACTTCCGCTGTGCACTCCACAGCACAGGGCGTTTATCTTCCGCAAGACAATTCAGGGGATCCAGTTGA
TCCGCATAAGGTGTACGAACTTAGCCGGGAGCTTGGATCTACTGTGGGCCAGCCACGGAAAATAGGGAA
GAAGTGAGCCTCAGCAATGCTCTGCCACACAGGGTGTGTCCCCAGGATCATTCTGGCAAGAGAAAATG
CTGGGCTCAAACCCCAAGCCCTCTGCTTCTAGTGATGCCGGGGACCTCTGCTTCAGGTTCTGCAGTA
CAGCCACATACTGGAATCCGAGTCTGGGGCAGACCCCGTCCCACCACAGGCTCCTGGCCAGGAGCAAGAC
CGTGTTCAGGAAACCCTATGCAGCATGGCAGGTGGAAGCTGTCCCGTCCCAGGCTCAACAGCCAG
CTCTACCGAGCGCAGCCTTGGGTTCTGGATGTGACCATCATGTACAAGGGCCGACAGTGCTACAGGC
AGTGGTGGGGCACCCAGATGCGTGTCTGTACAGCCCCATGGCCCCAGCAGTAAGAATTCAGAGCCC
CAGCCGGTGATCTTCCAGTCTGCTGAGCTCCAGATCAGAAGCAGCTGCACTACACAGAGACGCTTC
TCCAGCATGTGTCTCCCGCCTTCACTGGAGCTTCGAGGACCGTCACTGTGGGCCCTGCGTATGGGCAA
GTGCAAGGTGACTGGGAGGTAGGCAGCCCTATGGGCACTACCGGCCCTCCACCCACCCAGCTGCTG
GAGCGCAACCGCCACACCCCATCTTCCAGTTCAGCACTTCTTCCGAGAAGTGGAGGAGTTTCGGGCTC
GGAGGGCGCAAGGGTACCACACTACACCATCTACCTGGGTTTTGGGCAAGACTGTGTCAGCAGGGAGGCC
CAAGGAGAAGACCCTGATCCTGGTGAAGCTGGAGCCATGGGTATGCAAGGCATACCTGGAGGGCGTGCAG
CGTGAGGGTGTCTCCTCCCTGGACAGCAGCAGTCTCGGCTGTGCTTGTCTAGCACCAACAGTCTCTACG
AAGACATCGAACACTTCTCATGGACCTGGGTCAGTGGCCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG225814 representing NM_016850
 Red=Cloning site Green=Tags(s)

MAEVRGVQRVLFGDWLLGEVSSGQYEGLQWLNEARTVFRVPWKHFGRDDLDEEDAQIFKAWAVARGRWPP
 SGVNLPPPEAAEAERRRRRGWKTNFRCALHSTGRFILRQDNSGDPVDPHKVYELSRELGSTVGPATENRE
 EVSLSNALPTQGVSPGSFLARENAGLQTPSPLLSSDAGDLLLQVLQYSHILESESGADPVPPQAPGQEQD
 RYVEEPYAAWQVEAVPSRPQQPALTERSLGFLDVTIMYKGRVTLQAVVGHPRCVFLYSPMAPAVRTSEP
 QPVIFFSPAELPDQKQLHYTETLLQHVSPGLQLELRGPSLWALRMGKCKVYWEVGSMPGTTGPSTPPQLL
 ERNRHTPIFDSTFFRELEEFRARRRQGSPHYTYLGFQQDL SAGRPKEKTLILVKLEPVWCKAYLEGVQ
 REGVSSLDSSSLGLCLSSTNSLYEDIEHFLMDLGQWP

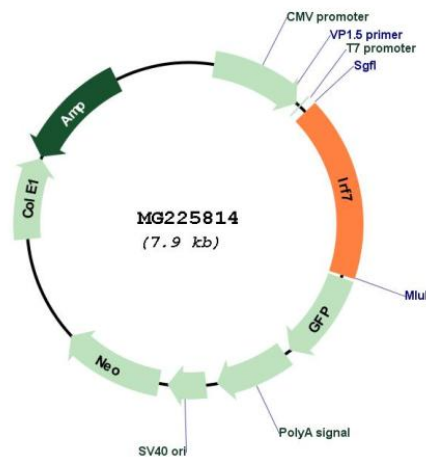
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



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

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]