

## Product datasheet for MR206641

### Irf3 (NM\_016849) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Irf3 (NM_016849) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Irf3
Synonyms:	C920001K05Rik; IRF-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206641 representing NM_016849 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAACCCCGAAACCGCGGATTTTGCCTGGCTGGTGTACAGCTGGACCTGGGGCAGCTGGAAGGCG  
TGGCTGGCTGGACGAGAGCCGAACGAGGTTCCAGGATCCCGTGGAAAGCATGGCTACGGCAGGACGCACA  
GATGGCTGACTTTGGCATCTTCCAGGCTGGGCAGAAGCCAGTGGTGCCTACACCCCGGGGAAGGATAAG  
CCGGACGTGTCAACCTGGAAGAGGAATTTCCGGTCAGCCCTGAACCGAAAGAAGTGTTCGGTTAGCTG  
CTGACAATAGCAAGGACCCTTATGACCCTATAAAGTGTATGAGTTTGTGACTCCAGGGCGCGGGACTT  
CGTACATCTGGGTGCCTCTCCTGACACCAATGGCAAAAGCAGCCTGCCTCACTCCAGGAAAACCTACCG  
AAGTTATTTGATGGCCTGATCTTGGGGCCCTCAAAGATGAGGGTCTCAGATCTGGCTATTGTTTCTG  
ATCCTTCTCAACAAGTCCAAGCCCAATGTGAACAACCTCTAAACCCTGCACCCCAAGAAAATCCACT  
GAAGCAGCTGCTAGCTGAGGAACAATGGGAGTTCGAGGTGACCGCCTTCTACCGAGGCCCGCAGGTCTTC  
CAGCAGACTCTTTTGGCCGGGGGCTGCGGCTGGTGGGCAGCACAGCTGACATGACTGCCCTGGC  
AGCCAGTACCCTGCCGATCCTGAGGGTTTCTGACGGACAAGCTTGTGAAGGAGTACGTGGGGCAGGT  
GCTCAAAGGGCTGGGCAATGGGCTGGCACTGTGGCAGGCTGGGCAGTGCCTCTGGGCCAGCGCCTAGGC  
CACTCCCAGCCTTCTGGGCTCTGGGGAGGAGCTGCTTCCAGACAGTGGGCGAGGGCCTGATGGGAGAG  
TCCACAAGGACAAGGACGAGCCGTGTTGACCTCAGGCCCTTCGTGGCAGATCTGATTGCCTTCATGGA  
AGGAAGTGGACTCCCCACGCTACACTCTGTGTTTCTGCATGGGGGAAATGTGGCCCCAGGACCAGCCA  
TGGGTCAAGAGGCTTGTGATGGTCAAGTTGTTCTACATGTCTTAAGGAGCTGTAGAGATGGCCCGGG  
AAGGGGAGCCTTCTCACTGAAAACCGTGGACTTGACATCTCCAACAGCCAGCCTATCTCCCTTACCTC  
TGACCAGTACAAGGCTACCTCCAGGACTTGGTGGAGGACATGGACTTCCAGGCCACTGGAATATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >MR206641 representing NM\_016849  
 Red=Cloning site Green=Tags(s)

METPKPRILPWLVSQDLGQLEGVAWLDESRTFRIPWKHGLRQDAQMADFGIFQAWAEASGAYTPGKDK  
 PDVSTWKRNFRSALNRKEVLRRLAADNSKDPYDPHKVYEFVTPGARDFVHLGASPTNGKSSLPHSQENLP  
 KLFDGLILGPLKDEGSSDLAIVSDPSQQLPSPNVNNFLNPAPQENPLKQLLAAEEQWFEVTA FYRGRQVF  
 QQTLFCPGLRLVGSTADMTLPWQPVTLPDPEGFLTDKLVKEYVGVQLKGLGNGLALWQAGQCLWAQRLG  
 HSHAFWALGEELLPDSGRGPDGEVHKDKDGAVFDLRPFVADLIAFMEGSGHSPRYTLWFCMGEMWPQDQP  
 WYKRLVMVKVPTCLKELLEMAREGGASSLKTVDLHISNSQPI SLTSDQYKAYLQDLVEDMDFQATGNI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_016849

**ORF Size:** 1257 bp

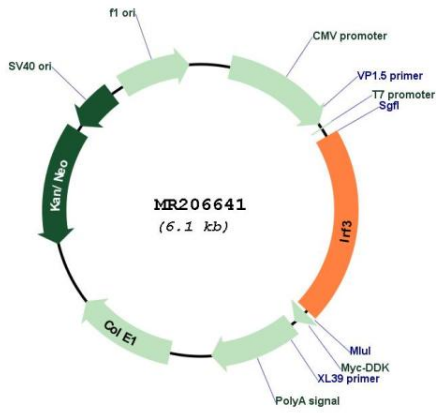
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

<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_016849.4</a></u>
<b>RefSeq Size:</b>	2041 bp
<b>RefSeq ORF:</b>	1260 bp
<b>Locus ID:</b>	54131
<b>UniProt ID:</b>	<u><a href="#">P70671</a></u>
<b>Cytogenetics:</b>	7 B3
<b>MW:</b>	47.3 kDa
<b>Gene Summary:</b>	Key transcriptional regulator of type I interferon (IFN)-dependent immune responses which plays a critical role in the innate immune response against DNA and RNA viruses (PubMed:15800576). 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 (PubMed:15800576). Acts as a more potent activator of the IFN-beta (IFNB) gene than the IFN-alpha (IFNA) gene and plays a critical role in both the early and late phases of the IFNA/B gene induction (PubMed:16846591, PubMed:16979567, PubMed:20049431). Found in an inactive form in the cytoplasm of uninfected cells and following viral infection, double-stranded RNA (dsRNA), or toll-like receptor (TLR) signaling, is phosphorylated by IKBKE and TBK1 kinases (PubMed:16846591, PubMed:16979567, PubMed:20049431). This induces a conformational change, leading to its dimerization and nuclear localization and association with CREB binding protein (CREBBP) to form dsRNA-activated factor 1 (DRAF1), a complex which activates the transcription of the type I IFN and ISG genes (PubMed:16846591, PubMed:16979567, PubMed:20049431). Can activate distinct gene expression programs in macrophages and can induce significant apoptosis in primary macrophages (PubMed:16846591, PubMed:16979567, PubMed:20049431).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206641