

Product datasheet for **SC119171**

IFIT3 (NM_001549) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IFIT3 (NM_001549) Human Untagged Clone
Tag:	Tag Free
Symbol:	IFIT3
Synonyms:	CIG-49; cig41; GARG-49; IFI60; IFIT4; IRG2; ISG60; P60; RIG-G
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119171 sequence for NM_001549 edited (data generated by NextGen Sequencing)

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ATGAGTGAGGTACCAAGAATCCCTGGAGAAAATCCTTCCACAGCTGAAATGCCATTTCC
ACCTGGAACCTATTCAAGGAAGACAGTGTCTCAAGGGATCTAGAAGATAGAGTGTGTAAC
CAGATTGAATTTTTAAACACTGAGTTCAAAGCTACAATGTACAACCTGTTGGCCTACATA
AAACACCTAGATGGTAACAACGAGGCAGCCCTGGAATGCCTACGGCAAGCTGAAGAGTTA
ATCCAGCAAGAACATGCTGACCAAGCAGAAATCAGAAGTCTAGTCACTTGGGAAAACAC
GCCTGGGTCTACTATCACTTGGGCAGACTCTCAGATGCTCAGATTTATGTAGATAAGGTG
AAACAAACCTGCAAGAAATTTTCAAATCCATACAGTATTGAGTATTCTGAACTTGACTGT
GAGGAAGGGTGGACACAACCTGAAGTGTGGAAGAAATGAAAGGGCGAAGGTGTGTTTTGAG
AAGGCTCTGGAAGAAAAGCCCAACAACCCAGAATTCTCCTCTGGACTGGCAATTGCGATG
TACCATCTGGATAATCACCCAGAGAAACAGTTCTCTACTGATGTTTTGAAGCAGGCCATT
GAGCTGAGTCTGATAACCAATACGTCAAGGTTCTCTTGGGCCTGAAACTGCAGAAGATG
AATAAAGAAGCTGAAGGAGAGCAGTTTGTGAAGAAGCCTTGAAAAGTCTCCTTGCCAA
ACAGATGCTCCTCCGAGTGCAGCCAAATTTACAGAAGAAAAGGTGACCTAGACAAGCT
ATTGAACTGTTTTCAACGGGTGTTGGAATCCACACCAAACAATGGCTACCTCTATACCAG
ATTGGGTGCTGCTACAAGGCAAAAGTAAGACAAATGCAGAATACAGGAGAATCTGAAGCT
AGTGGAATAAAGAGATGATTGAAGCACTAAAGCAATATGCTATGGACTATTTCGAATAAA
GCTCTTGAGAAGGGACTGAATCCTCTGAATGCATACTCCGATCTCGCTGAGTTCTCTGGAG
ACGGAATGTTATCAGACACCATTCATAAAGGAAGTCCCTGATGCTGAAAAGCAACAATCC
CATCAGCGCTACTGCAACCTTCAGAAATATAATGGGAAGTCTGAAGCACTGCTGTGCAA
CATGGTTTAGAGGGTTTTGCCATAAGCAAAAAATCAACTGACAAGGAAGAGATCAAAGAC
CAACCACAGAATGTATCTGAAAATCTGCTTCCACAAAATGCACCAAATTTATTGGTATCTT
CAAGGATTAATTATAAGCAGAATGGAGATCTGCTGCAAGCAGCCAAATGTTATGAGAAG
GAACTGGCCCGCTGCTAAGGGATGCCCTTACAGGCATAGGCAGTATTTTCTGTGAGCA
TCTGAGCTTGAGGATGGTGTGAGGAAATGGGCCAGGGCGCAGTCACTCCAGTCCCAGA
GAGCTCTCTCTAACTCAGAGCAACTGAACTGA
    
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Clone variation with respect to NM_001549.4

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_001549 unedited
NNGAATTTGTATACGACTCACTTAGGGCGCGGNATTCGGCACGAGGGCTTTCTGAAA
AACAAATCAGCCTGGTCAACAGCTTTTTCGGAACAGCAGAGACACAGAGGGCAGTCATGAG
TGAGGTACCAAGAATCCCTGGAGAAAATCCTTCCACAGCTGAAATGCCATTTACCTG
GAACTTATTCAAGGAAGACAGTGTCTCAAGGGATCTAGAAGATAGAGTGTGTAACCAGAT
TGAATTTTTAAACACTGAGTTCAAAGCTACAATGTACAACCTGTTGGCCTACATAAAAACA
CCTAGATGGTAACAACGAGGCAGCCCTGGAATGCCTACGGCAAGCTGAAGAGTTAATCCA
GCAAGAACATGCTGACCAAGCAGAAATCAGAAGTCTAGTCACTTGGGAAAACACGCCTG
GGTCTACTATCACTTGGGCAGACTCTCAGATGCTCAGATTTATGTAGATAAGGTGAAACA
AACCTGCAAGAAATTTTCAAATCCATACAGTATTGAGTATTCTGAACTTGACTGTGAGGA
AGGGTGGACACAACCTGAAGTGTGGAAGAAATGAAAGGGCGAAGGTGTGTTTTGAGAAGGC
TCTGGAAGAAAAGCCCAACAACCCAGAATTCTCCTCTGGACTGGCAATTGCGATGTACCA
TCTGGATAATCACCCAGAGAAACAGTTCTCTACTGATGTTTTGAAGCAGGCCATTGAGCT
GAGTCTGATAACCAATACGTCAAGGTTCTCTTGGGCCTGAAACTGCAGAAGATGAATAA
AGAAGCTGAAGGAGAGCAGTTTGTGAAGAAGCCTTTGAAAAGTCTNCTTGNCCAACAGA
TGTCTCCGAGTGCAGCCAAATTTACAGAAAANAAGGTGACCTAGACAAGCTATTGA
ACTGGTTCAACGGGTGNTGGAATNCCACCAAACATGG
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_001549 unedited TCTTGGCCGCGGCCGCATCTAAGTCGAGTTTTTTTTTTTTTTTTTTTGGAGAGGAGTCTTGC TCTGTTGCCAGGCTGGAGTGCAGGGCGCAATCTTGGCTCACTGCAACCTCTTCCTTCC AGGTTACAGCCATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGCCAGCCA CCACGCCTGGCTAATTTTTGTATTTTTAGTAGAGACGGGATTTCACTGTGTTAGCCAGG ATGGTCTCAAACCTCCAGACCTCGTGATCCGCCACCTCGGCCTCCCAAAGTGCTGGGATT ACAGGCATGAGCCACTGCGCCCGCCAAAAACAACCTTTAAAAATGTACCTTAGAGCA ACATGCAAAGCTTCCCTGCTCAGCAATCCAGGTTGGGGCCCTGTCTTCTATCGTCC TACCCGTCACAACCACCCTGCAGGCTTCTGATGCTCTGTTTTCTCCTCTGTCTCAGT TCAGTCGCTCTGAGTTAGAGAGGAGCTCTCTGGGACTGGAGCTGACTGCGCCCTGTCCCA TTCTCTCACTACCATCTAAAGCTCAGATGCTGACAGGAAAATACTGCCTATGCCTGACG GGGCTCCCTTATCAGGCGGCCAGCCCTTCCATAACATTGGGCTGGCTGCCACAGATC TCCATTCTGCTTATGAATTAATCCCTGAAAATACCAACAATTTGGGGCATTTCGTGGAAC CAAATTTTTAAATACCTCTGGGCGGTGCGCTTCGACCTTTGCTTGCCACTGGAACCTT TTGCCTTAGGCCACACCCTCTTAACACTGTTGGCCAACCGCGGCTGCAAATCCCCAT TTATCCCCACGGTGACCACCGCTCAGCGATTCCCGCTTCCCCACAGGGCTCCCCCT ATGGAGGGGCGCCAAACTCGCCGCGAGGAACTCCGGACACGCCGTTCCGTTGAGGAT TCATCGCCTCACAAACT
Restriction Sites:	NotI-NotI
ACCN:	NM_001549
Insert Size:	2100 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 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
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_001549.2 , NP_001540.2

RefSeq Size: 1977 bp

RefSeq ORF: 1473 bp

Locus ID: 3437

UniProt ID: [O14879](#)

Cytogenetics: 10q23.31

Domains: TPR

Gene Summary: IFN-induced antiviral protein which acts as an inhibitor of cellular as well as viral processes, cell migration, proliferation, signaling, and viral replication. Enhances MAVS-mediated host antiviral responses by serving as an adapter bridging TBK1 to MAVS which leads to the activation of TBK1 and phosphorylation of IRF3 and phosphorylated IRF3 translocates into nucleus to promote antiviral gene transcription. Exhibits an antiproliferative activity via the up-regulation of cell cycle negative regulators CDKN1A/p21 and CDKN1B/p27. Normally, CDKN1B/p27 turnover is regulated by COPS5, which binds CDKN1B/p27 in the nucleus and exports it to the cytoplasm for ubiquitin-dependent degradation. IFIT3 sequesters COPS5 in the cytoplasm, thereby increasing nuclear CDKN1B/p27 protein levels. Upregulates CDKN1A/p21 by downregulating MYC, a repressor of CDKN1A/p21. Can negatively regulate the apoptotic effects of IFIT2.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes isoform a. Variants 1 and 2 both encode isoform a, using different start codons but encoding identical proteins. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.