

Product datasheet for **SC127861**

Interferon beta (IFNB1) (NM_002176) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Interferon beta (IFNB1) (NM_002176) Human Untagged Clone
Tag:	Tag Free
Symbol:	Interferon beta
Synonyms:	IFB; IFF; IFN-beta; IFNB
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC127861 sequence for NM_002176 edited (data generated by NextGen Sequencing)

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ATGACCAACAAGTGTCTCCTCCAATTGCTCTCCTGTTGTGCTTCTCCACTACAGCTCTT
TCCATGAGCTACAACCTTGGATTCTACAAAGAAGCAGCAATTTTCAGTGTCAGAAG
CTCCTGTGGCAATTGAATGGGAGGCTTGAATACTGCCTCAAGGACAGGATGAACTTTGAC
ATCCCTGAGGAGATTAAGCAGCTGCAGCAGTTCAGAAGGAGGACGCCGATTGACCATC
TATGAGATGCTCCAGAACATCTTTGCTATTTTCAGACAAGATTCATCTAGCACTGGCTGG
AATGAGACTATTGTTGAGAACCTCCTGGCTAATGTCTATCATCAGATAAACCATCTGAAG
ACAGTCTGGAAGAAAACTGGAGAAAGAAGATTTACCAGGGGAAAACTCATGAGCAGT
CTGCACCTGAAAAGATATTATGGGAGGATTCTGCATTACCTGAAGCCAAGGAGTACAGT
CACTGTGCCTGGACCATAGTCAGAGTGGAAATCCTAAGGAACTTTACTTCATTAACAGA
CTTACAGGTTACCTCCGAAACTGA
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Clone variation with respect to NM_002176.2



[View online »](#)

5' Read Nucleotide Sequence: >OriGene 5' read for NM_002176 unedited
 AAAAGGGTTGCTATTGTAACGACTCCCTAAGGGCGGCCCGCAATTCGTCAACATGACC
 CACCAGTGTCTCCTCAAATTGCTCTCCTGTTGTGCTTCTCAATACGCCCTTTCCAGAGC
 TTCAACCTGCTTGGATTCTACAAAGAAGCCGCAACTTTCAGTGTGAGAAGCTCCTGTGG
 CAATATGAACGGGAGGCCTTGAATACTGCCTCAAGGACAGGATGAACTTTGACCTCCCTG
 AGGAAGCTTTGCAGCCGACGAGTTCAGAAAGGAGGACGCCCGCATTGACCATCTATGAG
 ATGCTCCAGAACATCTTTGCTATTTTCAGACCAAGATTCATCTAGCACTGGCTGGAATTG
 AGACTATTGTTGAGAACCCTTCTTGGCTTATGTCTATCATCAGATAAACCATTCTTGAA
 GCCAGTCTGGAAGAAAACTGGAGAAAGAAGATTTTACCAGGGGAAAACTCTTGAGCC
 GTCTGCACCTTGAAGAATATTATTGGGAGGATTCCTGCATTACCTGAAGGCCAAAGGAG
 TACCAGTACCTTGTGCCTGGACCATAATCAGAGTGGAATCCTAAGGGAACCTTTTACT
 TTCATTAACAGAACTTACAGGTTACCTCCGAACTGAAGATCTCCTAACCTGTGCCTCTG
 GGACTGGACAATTGCTTCAAGCATTCTTCAACCAGCAGATGCTNGTTAAGTGACTGATGG
 CTCGACTTAGNATTGCGACGNGTCATAGCTGATTACTGAACGATCCCCGGTGGGCATC
 CTGTGACCCTNCCAGTGCCTCTCTGGGCTGGGAGTTTGCCTCCAGTCCCACAGCCC
 TTGTCTAATAAAATTAAGTGCATCATTTTGTCTGACATAGTGCTCCTTAAATATGGTGGN
 NGGGGGGGGGGGNNNNNNNNNNNGGGGNNNNNTTAAAAAAACAACCTGGGGGGCC
 A

3' Read Nucleotide Sequence: >OriGene 3' genomic read for NM_002176 unedited
 CCAATCCATTAACGCATCTGCTGGTTGAAGAATGCTTGAAGCAATTGCCAGTCCCAG
 AGGCACAGGCTAGGAGATCTTCAGTTTCGGAGGTAACCTGTAAGTCTGTTAATGAAGTAA
 AAGTTCCTTAGGATTTCCACTCTGACTATGGTCCAGGCACAGTACTGTACTCCTTGGCT
 TTTATGTAATGCAGAATCTCCATAATATCTTTTCAGGTGCAGACTGCTCATGAGTTTT
 CCCCTGGTGAAATCTTCTTCTCCAGTTTTTCTCCAGGACTGTCTTCCAGATGGTTTATC
 TGATGATAGACATTAGCCAGGAGTTCTCAACAATAGTCTCATTCCAGCCAGTGTAGAT
 GAATCTTGTCTGAAAATAGCAAAGATGTTCTGGAGCATCTCATAGATGGTCAATGCGGCG
 TCCTCCTTCTGGAAGTGTGCAGCTGCTTAATCTCCTCAGGGATGTCAAAGTTCATCCTG
 TCCTTGAGGCAGTATTCAAGCCTCCATTCAATTGCCACAGGAGCTTCTGACACTGAAAA
 TTGCTGCTTCTTTGTAGGAATCCAAGCAAGTTGTAGCTCATGGAAGAGCTGTAGTGGAG
 AAGCACACAGGAGAGCAATTTGGAGGAGACACTTGTGGTTCATGTTGACGAATTCGCGG
 CCGCCCTATAGTGAGTCGTATTACAAAATTCTGACGGTTCACTAAACGAGCTCTGCTTAT
 ATAGACCTCCCACGTACACGCCTACCGNCCATTTGCGTCAACGGGGCGGGTTATTACG
 ACATTTTTGGAAAGTCCCGTTGATTTTTGGTGCCCAACAACTCCCATGACGTCCATGG
 GGTGGAGACTTTGGAATCCCGTGAGTCAA

Restriction Sites: Please inquire

ACCN: NM_002176

Insert Size: 750 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:

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_002176.2](#), [NP_002167.1](#)

RefSeq Size: 840 bp

RefSeq ORF: 564 bp

Locus ID: 3456

UniProt ID: [P01574](#)

Cytogenetics: 9p21.3

Protein Families: Druggable Genome, Secreted Protein, Transmembrane

Protein Pathways: Cytokine-cytokine receptor interaction, Cytosolic DNA-sensing pathway, Jak-STAT signaling pathway, Natural killer cell mediated cytotoxicity, RIG-I-like receptor signaling pathway, Toll-like receptor signaling pathway

Gene Summary:

This gene encodes a cytokine that belongs to the interferon family of signaling proteins, which are released as part of the innate immune response to pathogens. The protein encoded by this gene belongs to the type I class of interferons, which are important for defense against viral infections. In addition, type I interferons are involved in cell differentiation and anti-tumor defenses. Following secretion in response to a pathogen, type I interferons bind a homologous receptor complex and induce transcription of genes such as those encoding inflammatory cytokines and chemokines. Overactivation of type I interferon secretion is linked to autoimmune diseases. Mice deficient for this gene display several phenotypes including defects in B cell maturation and increased susceptibility to viral infection. [provided by RefSeq, Sep 2015]