

Product datasheet for RC218565

Interferon beta (IFNB1) (NM_002176) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Interferon beta (IFNB1) (NM_002176) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Interferon beta
Synonyms: IFB; IFF; IFN-beta; IFNB
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC218565 representing NM_002176
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACCAACAAGTGTCTCCTCCAAATTGCTCTCCTGTTGTGCTTCTCCACTACAGCTCTTTCCATGAGCT
 ACAACTTGGATTCTTACAAGAAGCAGCAATTTTCAGTGTGAGAAGCTCCTGTGGCAATTGAATGG
 GAGGCTTGAATACTGCCTCAAGGACAGGATGAACCTTTCATCCCTGAGGAGATTAAGCAGCTGCAGCAG
 TTCCAGAAGGAGGACGCCGATTGACCATCTATGAGATGCTCCAGAACATCTTTGCTATTTTCAGACAAG
 ATTCATCTAGCACTGGCTGGAATGAGACTATTGTTGAGAACCTCCTGGCTAATGTCTATCATCAGATAAA
 CCATCTGAAGACAGTCTGGAAGAAAACTGGAGAAAGAAGATTTACCAGGGGAAAACTCATGAGCAGT
 CTGCACCTGAAAAGATATTATGGGAGGATTCTGCATTACCTGAAGGCCAAGGAGTACAGTCACTGTGCC
 GGACCATAGTCAGAGTGGAAATCCTAAGGAACTTTTACTTCATTAACAGACTTACAGGTTACCTCCGAAA
 C

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218565 representing NM_002176
 Red=Cloning site Green=Tags(s)

MTNKLLQIALLLCFSTTALSMSYNLLGFLQRSSNFQCQKLLWQLNGRLEYCLKDRMNFDIPEEIKLQQ
 FQKEDAALTIYEMLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDFTRGKLMSS
 LHLKRYGRILHYLKAKEYSHCAWTIVRVEILRNIFYFINRLTGYLNRN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



[View online »](#)

Chromatograms: https://cdn.origene.com/chromatograms/mk6116_g11.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_002176

ORF Size: 561 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](#)

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:

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_002176.4](#)

RefSeq Size: 840 bp

RefSeq ORF: 564 bp

Locus ID: 3456

UniProt ID: [P01574](#)

Cytogenetics: 9p21.3

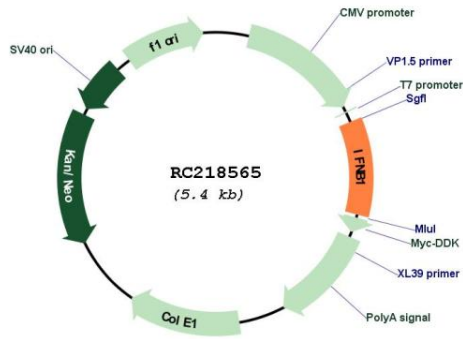
Protein Families: Druggable Genome, Secreted Protein, Transmembrane

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

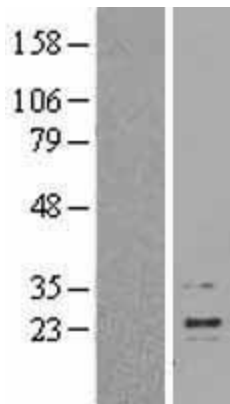
MW: 22.1 kDa

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]

Product images:



Circular map for RC218565



Western blot validation of overexpression lysate (Cat# [LY400789]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218565 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).