

Product datasheet for **RG221091**

Interferon alpha 2 (IFNA2) (NM_000605) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Interferon alpha 2 (IFNA2) (NM_000605) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: Interferon alpha 2
Synonyms: IFN-alpha-2; IFN-alphaA; IFNA; IFNA2B; IeIF A
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG221091 representing NM_000605
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCTTGACCTTTGCTTTACTGGTGGCCCTCTGGTGTCTCAGCTGCAAGTCAAGCTGCTCTGTGGGCT
GTGATCTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCACAGATGAGGAGAAT
CTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTTCCCAGGAGGAGTTTGGCAACCAGTTC
CAAAGGCTGAAACCATCCCTGTCCTCCATGAGATGATCCAGCAGATCTTCAATCTTTCAGCACAAAGG
ACTCATCTGCTGCTTGGGATGAGACCCTCTAGACAAATTCTACACTGAAGTCTACCAGCAGCTGAATGA
CCTGGAAGCCTGTGTGATACAGGGGGTGGGGTGACAGAGACTCCCTGATGAAGGAGGACTCCATTCTG
GCTGTGAGGAAATACTTCAAAGAATCACTCTCTATCTGAAAGAGAAGAAATACAGCCCTTGTGCCTGGG
AGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCTTTGTCACAAACTTGCAAGAAAGTTTAAAGAAGTAA
GGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG221091 representing NM_000605
Red=Cloning site Green=Tags(s)

MALTFALLVALLVLSCKSSCSVGCPLPQTHSLGSRRTLMLLAQMRRISLFSCLKDRHDFGFPQEEFGNQF
QKAETIPVLHEMIQQIFNLFSTKDSSAAWDETLLDKFYTEL YQQLNDLEACVIQGVGTETPLMKEDSIL
AVRKYFQRITLYLKEKKYSPCAWEVVRAEIMRSFSLSTNLQESLRSKE

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_000605

ORF Size: 564 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:

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_000605.4](#)

RefSeq Size: 1142 bp

RefSeq ORF: 567 bp

Locus ID: 3440

UniProt ID: [P01563](#)

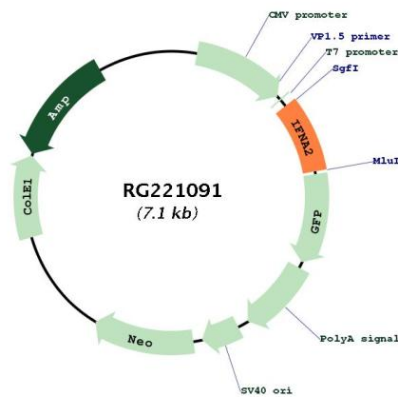
Cytogenetics: 9p21.3

Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: Antigen processing and presentation, Autoimmune thyroid disease, Cytokine-cytokine receptor interaction, Cytosolic DNA-sensing pathway, Jak-STAT signaling pathway, Natural killer cell mediated cytotoxicity, Regulation of autophagy, RIG-I-like receptor signaling pathway, Toll-like receptor signaling pathway

Gene Summary: This gene is a member of the alpha interferon gene cluster on chromosome 9. The encoded cytokine is a member of the type I interferon family that is produced in response to viral infection as a key part of the innate immune response with potent antiviral, antiproliferative and immunomodulatory properties. This cytokine, like other type I interferons, binds a plasma membrane receptor made of IFNAR1 and IFNAR2 that is ubiquitously expressed, and thus is able to act on virtually all body cells. The encoded protein is effective in reducing the symptoms and duration of the common cold and in treating many types of cancer, including some hematological malignancies and solid tumors. A deficiency of type I interferon in the blood is thought to be a hallmark of severe COVID-19 and may provide a rationale for a combined therapeutic approach. [provided by RefSeq, Aug 2020]

Product images:



Circular map for RG221091