

Product datasheet for **RC224395**

IL21 Receptor (IL21R) (NM_181079) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IL21 Receptor (IL21R) (NM_181079) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IL21 Receptor
Synonyms:	CD360; IMD56; NILR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224395 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCCGTGGCTGGGCCGCCCTTGCTCCTGCTGCTGCCAGGGAGGCTGGGGCTGCCCGACCTCG
 TCTGCTACACCGATTACCTCCAGACGGTATCTGCATCCTGGAAATGTGGAACCTCCACCCAGCAGCGT
 CACCCCTTACCTGGCAAGACCAGTATGAAGAGCTGAAGGACGAGGCCACCTCCTGCAGCCTCCACAGTCCG
 GCCACAATGCCACGCATGCCACCTACACCTGCCACATGGATGTATTCCACTTCATGGCCGACGACATTT
 TCAGTGTCAACATCACAGACCAGTCTGGCAACTACTCCAGGAGTGTGGCAGCTTCTCCTGGCTGAGAG
 CATCAAGCCGGCTCCCCTTTCAACGTGACTGTGACCTTCTCAGGACAGTATAATATCTCCTGGCGCTCA
 GATTACGAAGACCCTGCCTTCTACATGCTGAAGGGCAAGCTTCAGTATGAGCTGCAGTACAGGAACCGGG
 GAGACCCCTGGGCTGTGAGTCCGAGGAGAAAGTGTATCTCAGTGGACTCAAGAAGTGTCTCCCTCCTCCC
 CCTGGAGTTCGCAAAGACTCGAGCTATGAGCTGCAGGTGCGGGCAGGGCCATGCCTGGCTCCTCTAC
 CAGGGGACCTGGAGTGAATGGAGTGACCCGGTCACTTTTCAGACCCAGTACAGAGGAGTTAAAGGAAGGCT
 GGAACCTCACCTGCTGCTTCTCCTCCTGCTTGTGCATAGTCTTCACTTCTGCCTTCTGGAGCCTGAAGAC
 CCATCCATTGTGGAGGCTATGGAAGAAGATATGGGCCGTCACCCAGCCCTGAGCGGTTCTTCATGCCCTG
 TACAAGGGCTGCAGCGGAGACTTCAAGAAATGGGTGGGTGCACCTTCACTGGCTCCAGCCTGGAGCTGG
 GACCCCTGGAGCCAGAGGTGCCCTCCACCTGGAGGTGTACAGCTGCCACCCACCACGGAGCCCGGCCAA
 GAGGCTGCAGCTCACGGAGCTACAAGAACCAGCAGAGCTGGTGGAGTCTGACGGTGTGCCAAGCCGAGC
 TTCTGGCCGACAGCCAGAAGTCTGGGGGCTCAGCTTACAGTGAAGAGAGGGATCGGCCATACGGCCTGG
 TGTCATTGACACAGTACTGTGCTAGATGCAGAGGGGCCATGCACCTGGCCCTGCAGCTGTGAGGATGA
 CGGCTACCCAGCCCTGGACCTGGATGCTGGCCTGGAGCCAGCCAGCCCTAGAGGACCCACTCTTGAT
 GCAGGGACCACAGTCTGTCTGTGGCTGTGTCTCAGCTGGCAGCCCTGGGCTAGGAGGGCCCTGGGAA
 GCCTCCTGGACAGACTAAAGCCACCCCTTGAGATGGGGAGGACTGGGCTGGGGGACTGCCTGGGGTGG
 CCGGTCACCTGGAGGGTCTCAGAGAGTGAAGCGGGCTCACCCCTGGCCGGCCTGGATATGGACACGTTT
 GACAGTGGCTTTGTGGGCTCTGACTGCAGCAGCCCTGTGGAGTGTGACTTACCAGCCCCGGGGACGAAG
 GACCCCCCGGAGCTACCTCCGCCAGTGGGTGGTATTCTCCGCCACTTTCGAGCCCTGGACCCAGGC
 CAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224395 protein sequence
 Red=Cloning site Green=Tags(s)

MPRGWAAPLLLLLLLQGGWGCPDLVICYTDYLQTVICILEMWNLHPSTLTLTWQDQYEELKDEATSCSLHRS
 AHNATHATYTCHMDVHFHMADDIFSVNITDQSGNYSQECGSFLLAESIKPAPPFNVTVTFSGQYNI SWRS
 DYEDPAFYMLKGKLYELQYRNRGDPWAVSPRRKLI SVDSRSVSLLEFRKDSSEYELQVRAGPMPGSSY
 QGTWSEWSDPVIFQTQSEELKEGWNPHLLLLLLLVI VFI PAFWSLKT HPLWRLWKKI WAVSPERFFMPL
 YKGCSDGFKKWWGAPFTGSSLELGPWSPEVPSTLEVYSCHPPRSPAKRLQLTELQEP AELVESDGVPKPS
 FWPTAQNSGGSAYSEERDRPYGLVSI DTVTVLDAEGPCTWPCSCEDDGYPALDL DAGLEPSPLEDPLLD
 AGTTVLSCGCVSAGSPGLGGPLGSLLDRLKPLADGEDWAGGLPWGGRSPGGVSESEAGSPLAGLDMDTF
 DSGFVGSDCSSPVECDF TSPGDEGPPRSYLRQWVVI PPPLSSPGPQAS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6669_d10.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_181079

ORF Size: 1614 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_181079.3](#)

RefSeq Size: 5006 bp

RefSeq ORF: 1683 bp

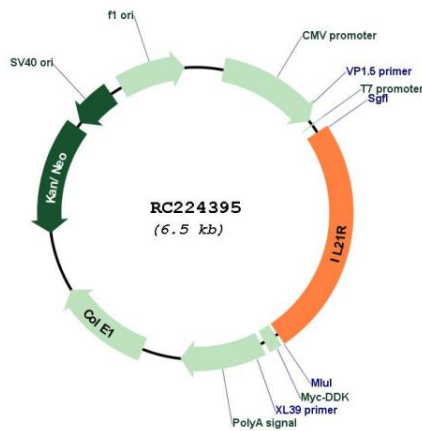
Locus ID: 50615

UniProt ID: [Q9HBE5](#)

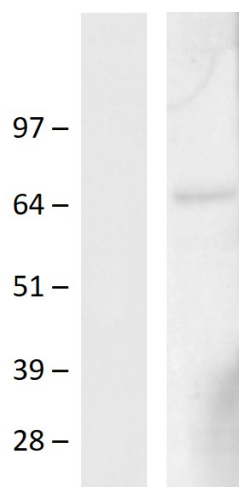
Cytogenetics: 16p12.1
Protein Families: Druggable Genome, Transmembrane
Protein Pathways: Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway
MW: 59.1 kDa

Gene Summary: The protein encoded by this gene is a cytokine receptor for interleukin 21 (IL21). It belongs to the type I cytokine receptors, and has been shown to form a heterodimeric receptor complex with the common gamma-chain, a receptor subunit also shared by the receptors for interleukin 2, 4, 7, 9, and 15. This receptor transduces the growth promoting signal of IL21, and is important for the proliferation and differentiation of T cells, B cells, and natural killer (NK) cells. The ligand binding of this receptor leads to the activation of multiple downstream signaling molecules, including JAK1, JAK3, STAT1, and STAT3. Knockout studies of a similar gene in mouse suggest a role for this gene in regulating immunoglobulin production. Three alternatively spliced transcript variants have been described. [provided by RefSeq, Jul 2010]

Product images:



Circular map for RC224395



Western blot validation of overexpression lysate (Cat# [LY411919]) using anti-DDK antibody (Cat# [TA592569]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC218929] using transfection reagent PEI.