

## Product datasheet for **RG218929**

### IL21 Receptor (IL21R) (NM\_021798) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	IL21 Receptor (IL21R) (NM_021798) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IL21 Receptor
Synonyms:	CD360; IMD56; NILR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG218929 representing NM\_021798  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCCGTGGCTGGGCCGCCCTTGCTCCTGCTGCTCCAGGGAGGCTGGGGCTGCCCGACCTCG  
 TCTGCTACACCGATTACCTCCAGACGGTATCTGCATCCTGGAAATGTGGAACCTCCACCCAGCAGCT  
 CACCCCTTACCTGGCAAGACCAGTATGAAGAGCTGAAGGACGAGGCCACCTCCTGCAGCCTCCACAGTGC  
 GCCACAATGCCACGCATGCCACCTACACCTGCCACATGGATGTATTCCACTTCATGGCCGACGACATTT  
 TCAGTGTCAACATCACAGACCAGTCTGGCAACTACTCCAGGAGTGTGGCAGCTTCTCCTGGCTGAGAG  
 CATCAAGCCGGCTCCCCTTTCAACGTGACTGTGACCTTCTCAGGACAGTATAATATCTCCTGGCGCTCA  
 GATTACGAAGACCCTGCCTTCTACATGCTGAAGGGCAAGCTTCAGTATGAGCTGCAGTACAGGAACCGGG  
 GAGACCCCTGGGCTGTGAGTCCGAGGAGAAAGTGTATCTCAGTGGACTCAAGAAGTGTCTCCCTCCTCCC  
 CCTGGAGTTCCGCAAAGACTCGAGCTATGAGCTGCAGGTGCGGGCAGGGCCATGCCTGGCTCCTCTAC  
 CAGGGGACCTGGAGTGAATGGAGTGACCCGGTCACTTTTCAGACCCAGTACAGAGGAGTTAAAGGAAGGCT  
 GGAACCCCTCACCTGCTGCTTCTCCTCCTGCTTGTGCATAGTCTTCACTTCTGCCTTCTGGAGCCTGAAGAC  
 CCATCCATTGTGGAGGCTATGGAAGAAGATATGGGCCGTCACCCAGCCCTGAGCGGTTCTTCATGCCCTG  
 TACAAGGGCTGCAGCGGAGACTTCAAGAAATGGGTGGGTGCACCCCTTCACTGGCTCCAGCCTGGAGCTGG  
 GACCCCTGGAGCCCAGAGGTGCCCTCCACCTGGAGGTGTACAGCTGCCACCCACCACGGAGCCCGGCCAA  
 GAGGCTGCAGCTCACGGAGCTACAAGAACCAGCAGAGCTGGTGGAGTCTGACGGTGTGCCAAGCCGAGC  
 TTCTGGCCGACAGCCAGAACTCGGGGGCTCAGCTTACAGTGAAGGAGGGATCGGCCATACGGCTGG  
 TGTCCATTGACACAGTACTGTGCTAGATGCAGAGGGGCCATGCACCTGGCCCTGCAGCTGTGAGGATGA  
 CGGCTACCCAGCCCTGGACTGGATGCTGGCCTGGAGCCAGCCAGCCCTAGAGGACCCACTCTTGGAT  
 GCAGGGACCACAGTCTGTCTGTGGCTGTGTCTCAGCTGGCAGCCCTGGCTAGGAGGGCCCTGGGAA  
 GCCTCCTGGACAGACTAAAGCCACCCCTTGAGATGGGGAGGACTGGGCTGGGGGACTGCCTGGGGTGG  
 CCGGTCACCTGGAGGGTCTCAGAGAGTGAAGCGGGCTCACCCCTGGCCGGCCTGGATATGGACACGTTT  
 GACAGTGGCTTTGTGGGCTCTGACTGCAGCAGCCCTGTGGAGTGTGACTTACCAGCCCCGGGGACGAAG  
 GACCCCCCGGAGCTACCTCCGCCAGTGGGTGGTCACTTCTCCGCCACTTTCGAGCCCTGGACCCAGGC  
 CAGC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG218929 representing NM\_021798  
 Red=Cloning site Green=Tags(s)

MPRGWAAPLLLLLLQGGWGPCDLVICYTDYLQTVICILEMWNLHPSTLTLTWQDQYEELKDEATSCSLHRS  
 AHNATHATYTCHMDVHFHMADDIFSVNITDQSGNYSQECGSFLLAESIKPAPPFNVTVTFSGQYNI SWRS  
 DYEDPAFYMLKGKLYELQYRNRGDPWAVSPRRKLSVDSRSVSLLEPFRKDSSEYELQVRAGPMPGSSY  
 QGTWSEWSDPVIFQTQSEELKEGWNPHLLLLLLVIVFIPAFWSLKTPLWRLWKKIWA VSPERFFMPL  
 YKCGSGDFKKGWVAPFTGSSLELGPWSPEVPSTLEVYSCHPPRSPAKRLQLTELQEP AELVESDGVPKPS  
 FWPTAQNSGGSAYSEERDRPYGLVSI DTVTVLDAEGPCTWPCSCEDDGYPALDL DAGLEPSGLEDPLLD  
 AGTTVLSCGCVSAGSPGLGGPLGSLLDRLKPLADGEDWAGGLPWGGRSPGGVSESEAGSPLAGLMDTF  
 DSGFVGSDCSSPVECDF TSPGDEGPPRSYLRQWVVI PPPLSSPGPQAS

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_021798

**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\\_021798.4](#)

**RefSeq Size:** 3248 bp

**RefSeq ORF:** 1617 bp

**Locus ID:** 50615

**UniProt ID:** [Q9HBE5](#)

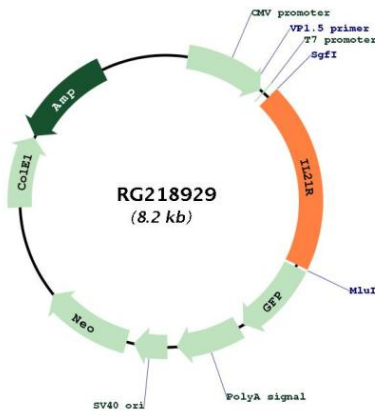
**Cytogenetics:** 16p12.1

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway

**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 RG218929