

## Product datasheet for **RC221974**

### **IL12RB1 (NM\_005535) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	IL12RB1 (NM_005535) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IL12RB1
Synonyms:	CD212; IL-12R-BETA1; IL12RB; IMD30
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC221974 representing NM\_005535  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAGCCGCTGGTGACCTGGGTGGTCCCCTCCTCTTCTCTTCTGCTGTCCAGGCAGGGCGCTGCCT  
GCAGAACCAGTGAGTGCTGTTTTTCAGGACCCGCCATATCCGGATGCAGACTCAGGCTCGGCCTCGGGCCC  
TAGGGACCTGAGATGCTATCGGATATCCAGTGATCGTTACGAGTGCTCCTGGCAGTATGAGGGTCCCACA  
GCTGGGGTCAGCCACTTCTGCGGTGTTGCCTTAGCTCCGGGCGCTGCTGCTACTTCGCCCGCGCTCAG  
CCACCAGGCTGCAGTTCTCCGACCAGGCTGGGGTGTCTGTGCTGTACACTGTCACACTCTGGGTGGAATC  
CTGGGCCAGGAACCAGACAGAGAAGTCTCCTGAGGTACCCTGCAGCTCTACAACCTAGTTAAATATGAG  
CCTCCTCTGGGAGACATCAAGGTGTCCAAGTTGGCCGGGACGCTGCGTATGGAGTGGGAGACCCCGGATA  
ACCAGGTTGGTGCTGAGGTGCAGTTCGGCACCCGACACCCAGCAGCCCATGGAAGTTGGCGACTGCGG  
ACCTCAGGATGATGATACTGAGTCTGCCTCTGCCCTTGAGATGAATGTGGCCAGGAATTCAGCTC  
CGACGACGGCGGCTGGGAGCCAAGGAAGTTCTGGAGCAAGTGGAGCAGCCCTGTGTGCGTTCCCCTG  
AAAACCCCCACAGCCTCAGGTGAGATTCTCGGTGGAGCAGCTGGGCCAGGATGGGAGGAGGCGGCTGAC  
CCTGAAAGAGCAGCCAACCCAGCTGGAGCTTCCAGAAGGCTGTCAAGGGCTGGCGCTGGCACGGAGGTC  
ACTTACCGACTACAGCTCCACATGCTGTCTGCGCGTGTAAAGCCAAGGCCACCAGGACCTGCACCTGG  
GGAAGATGCCCTATCTCTCGGGTGTGCCTACAACGTGGCTGTCTCTCGAACCAATTTGGTCTGG  
CCTGAACCAGACGTGGCACAATTCCTGCCGACACCCACACAGAACCAGTGGCTCTGAATATCAGCGTCGGA  
ACCAACGGGACCACCATGTATTGGCCAGCCCGGCTCAGAGCATGACGTATTGCATTGAATGGCAGCCTG  
TGGGCCAGGACGGGGCCTTGCCACCTGCAGCCTGACTGCGCCGCAAGACCCGGATCCGGCTGGAATGGC  
AACCTACAGCTGGAGTCGAGAGTCTGGGCAATGGGGCAGGAAAAGTGTACTACATTACCATCTTTGCC  
TCTGCGCACCCCGAGAAGCTCACCTTGTGGTCTACGGTCTGTCCACCTACCACTTTGGGGCAATGCCT  
CAGCAGCTGGGACACCGCACCGTCTCGGTGAAGAATCATAGCTTGGACTCTGTGTCTGTGGACTGGG  
ACCATCCCTGCTGAGCACCTGTCCCGCGTCTAAAGGAGTATGTTGTCCGCTGCCGAGATGAAGACAGC  
AAACAGGTGTCAGAGCATCCCGTGCAGCCACAGAGACCCAAGTTACCCTCAGTGGCTGCGGGCTGGT  
TAGCCTACACGGTGCAGGTGCGAGCAGACACAGCGTGGCTGAGGGGTGTCTGGAGCCAGCCCAGCGCTT  
CAGCATCGAAGTGCAGGTTTCTGATTGGCTCATCTTCTCGCCTCCCTGGGGAGCTTCTGAGCATCCTT  
CTCGTGGGCGTCTTGGCTACCTTGGCCTGAACAGGGCCGACGGCACCTGTGCCCGCGCTGCCACAC  
CCTGTGCCAGCTCCGCCATTGAGTTCCTGGAGGGAAGGAGACTTGGCAGTGGATCAACCCAGTGGACTT  
CCAGGAAGAGGCATCCCTGCAGGAGGCCCTGGTGGTAGAGATGTCTGGGACAAAGGCGAGAGGACTGAG  
CCTCTCGAGAAGACAGAGCTACCTGAGGGTGCCCTGAGCTGGCCTGGATACAGAGTTGTCTTGGAGG  
ATGGAGACAGGTGCAAGGCCAAGATG

**ACGCGT**ACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC221974 representing NM\_005535  
Red=Cloning site Green=Tags(s)

MEPLVTWVPLLFLFLLSRQGAACRTSECCFQDPYPDADSGSASGPRDLRCYRISSDRYECSWQYEGPT  
 AGVSHFLRCLSSGRCCYFAAGSATRLQFSDQAGVSVLYTVTLWVESWARNQTEKSPEVTLQLYNSVKYE  
 PPLGDIKYSKLAGQLRMEWETPDNQVGAEVQFRHRTSPSPWKLGDGCPQDDDTESCLCPLMNVAQEFQL  
 RRRRLGSQSSWSKWSSPVCPVPPENPPQPVRFVSEQLGQDGRRLTLKEQPTQLELPEGCQGLAPGTEV  
 TYRLQLHMLSCPCAKATRTHLHGKMPYLSGAAYNAVIVSSNQFGPGLNQTHIPADTHTEPVALNISVG  
 TNGTTMYWPARAQSMTYCIEWQPVGQDGLATCSLTAPQDPDPAGMATYSWSRESGAMGQEKCYITIFA  
 SAHPEKLTWSTVLYSTYHFGGNASAAAGTPHHVSVKNHSLDSVSVDWAPSLSTPCGVLYKYVVRCRDEDS  
 KQVSEHPVQPTETQVTL SGLRAGVAYTVQVRADTAWLRGVWSQPQRF SIEVQVSDWL IFFASLGSFLSIL  
 LVGVLGYLGLNRAARHLCPPLPTPCASSAIEFPGGKETQWINPVDFQEEASLQEALVEMSWDKGERTE  
 PLEKTELPEGAPELALDTELSLEDGDRCKAKM

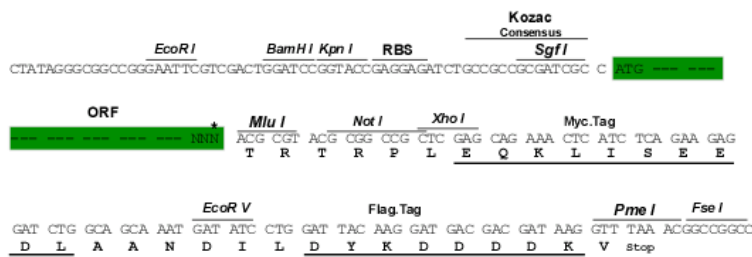
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6490\\_f05.zip](https://cdn.origene.com/chromatograms/mk6490_f05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_005535

**ORF Size:** 1986 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.

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

**RefSeq:** [NM\\_005535.3](#)

**RefSeq Size:** 2100 bp

**RefSeq ORF:** 1989 bp

**Locus ID:** 3594

**UniProt ID:** [P42701](#)

**Cytogenetics:** 19p13.11

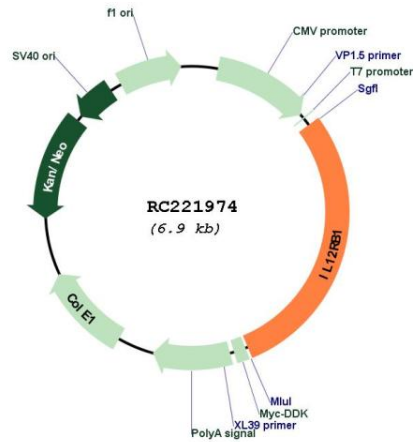
**Protein Families:** Druggable Genome, Transmembrane

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

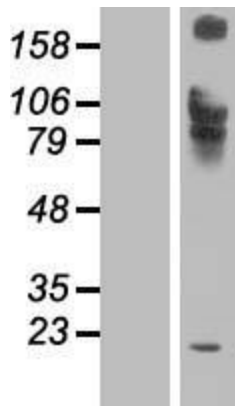
**MW:** 73.14 kDa

**Gene Summary:** The protein encoded by this gene is a type I transmembrane protein that belongs to the hemopoietin receptor superfamily. This protein binds to interleukine 12 (IL12) with a low affinity, and is thought to be a part of IL12 receptor complex. This protein forms a disulfide-linked oligomer, which is required for its IL12 binding activity. The coexpression of this and IL12RB2 proteins was shown to lead to the formation of high-affinity IL12 binding sites and reconstitution of IL12 dependent signaling. Mutations in this gene impair the development of interleukin-17-producing T lymphocytes and result in increased susceptibility to mycobacterial and Salmonella infections. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]

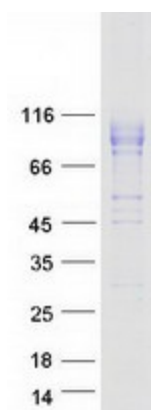
Product images:



Circular map for RC221974



Western blot validation of overexpression lysate (Cat# [LY417240]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221974 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IL12RB1 protein (Cat# [TP321974]). The protein was produced from HEK293T cells transfected with IL12RB1 cDNA clone (Cat# RC221974) using MegaTran 2.0 (Cat# [TT210002]).