

Product datasheet for **RC206591**

IL2 Receptor beta (IL2RB) (NM_000878) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IL2 Receptor beta (IL2RB) (NM_000878) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IL2 Receptor beta
Synonyms:	CD122; IL15RB; IMD63; P70-75
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC206591 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGCCCTGCTCTGTCTGGCGTCTGCCCTCCTCATCCTCCTCCTGCCCTGGCTACCTCTTGGG
 CATCTGCAGCGGTGAATGGCACTTCCCAGTTCACATGCTTCTACAACCTCGAGAGCCAACATCTCCTGTGT
 CTGGAGCCAAGATGGGGCTCTGCAGGACTTCCCTGCCAAGTCCATGCCTGGCCGGACAGACGGCGGTGG
 AACCAAACCTGTGAGCTGCTCCCGTGAGTCAAGCATCCTGGCCTGCAACCTGATCCTCGGAGCCCCAG
 ATTCTCAGAACTGACCACAGTTGACATCGTCACCCTGAGGGTGTGTGCCGTGAGGGGGTGCATGGAG
 GGTGATGGCCATCCAGGACTTCAAGCCCTTTGAGAACCTTCGCCTGATGGCCCCATCTCCCTCAAAGT
 GTCACGTGGAGACCCACAGATGCAACATAAGCTGGGAAATCTCCAAGCCTCCCACTACTTTGAAAGAC
 ACCTGGAGTTCGAGGCCCGGACGCTGTCCCAGGCCACACCTGGGAGGAGCCCCCTGCTGACTCTCAA
 GCAGAAGCAGGAATGGATCTGCCTGGAGACGCTCACCCAGACACCCAGTATGAGTTTCAGTGCGGGTC
 AAGCCTCTGCAAGCGGAGTTCAGGACTGGAGCCCTGGAGCCAGCCCTGGCCTTCAGGACAAAGCCTG
 CAGCCCTTGGGAAGGACACCATTCGCTGGCTCGGCCACCTCCTCGTGGTCTCAGCGGGGCTTTGGCTT
 CATCATCTTAGTGTACTTGTGATCAACTGCAGGAACACCGGGCCATGGCTGAAGAAGGTCTGAAGTGT
 AACACCCAGACCCCTCGAAGTCTTTTCCCAGCTGAGCTCAGAGCATGGAGGAGACGTCCAGAAGTGGC
 TCTCTTCGCCCTTCCCCTCATCGTCTTTCAGCCCTGGCGGCTGGCACCTGAGATCTCGCCACTAGAAGT
 GCTGGAGAGGGACAAGGTGACGACGCTGCTCTGCAGCAGGACAAGGTGCCTGAGCCCGCATCCTTAAGC
 AGCAACCACTCGTGCAGCTGCTTACCAACCAGGGTACTTCTTCTCCACCTCCCGGATGCCTTGG
 AGATAGAGGCTGCCAGGTGACTTTACTTACGACCCCTACTCAGAGGAAGACCCCTGATGAGGGTGGC
 CGGGCACCCACAGGGTCTTCCCCCAACCCCTGCAGCCTCTGTGAGGGGAGGACGACGCTACTGCACC
 TCCCCCTCCAGGGATGACCTGCTGCTTCTCCCCAGTCTCCTCGTGGTGGCCCCAGCCCCCAAGCACTG
 CCCCTGGGGCAGTGGGGCCGTGAAGAGAGGATGCCCTTCTTTGCAAGAAAGAGTCCCCAGAGACTG
 GGACCCAGCCCTGGGGCCTCCACCCAGGAGTCCCAGACCTGGTGGATTTTCAGCCACCCCTGAG
 CTGGTGTGCGAGAGGCTGGGGAGGAGTCCCTGACGCTGGCCCCAGGGAGGAGTCAAGTTCCCTGGT
 CCAGGCCTCTGGGCAGGGGAGTTCAGGGCCCTAATGCTCGCCTGCCCTGAACACTGATGCCTACTT
 GTCCTCAAGAACTCCAGGGTCAAGACCAACTCACTTGGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206591 protein sequence
 Red=Cloning site Green=Tags(s)

MAAPALSWRLPLLILLLLPLATSWASAAVNGTSQFTCFYNSRANISCVWSQDQALQDTSQVHAWPDRRRW
 NQTCELLPVQSASWACNLILGAPDSQKLTVDIVTLRVLCREGVRWRVMAIQDFKPFENLRMAPISLQV
 VHVETHRCNISWEISQASHYFERHLEFEARTLSPGHTWEEAPLLTLKQKQEWICLETLPDPTQYEFQVRV
 KPLQGEFTTWPWSQPLAFRTKPAALGKDTIPWLGHLVGLSGAFGFIIIVYLLINCRNTGPWLKVLKLC
 NTPDPSKFFSQLSSEHGGDVQKWLSSFPSSSFSPGGLAPEISPLEVLERDKVTQLLLQQDKVPEPASLS
 SNHSLTSCFTNQYFFFHLPDALEIEACQVYFTYDPYSEEDPDEGVAGAPTGSSPQLQPLSGEDDAYCT
 FPSRDDLLLFPSLLGGPSPSTAPGGSGAGEERMPPSLQERVPRDWDQPPLGPPTPGVPLDVFQPPPE
 LVLREAGEEVPDAGPREGVSFPWSRPPQGGEFRALNARLPLNTDAYLSLQELQQQDPTHLV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6197_a10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000878

ORF Size: 1653 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_000878.5](#)

RefSeq Size: 4050 bp

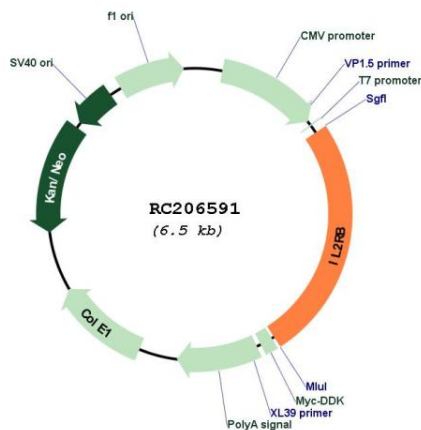
RefSeq ORF: 1656 bp

Locus ID: 3560

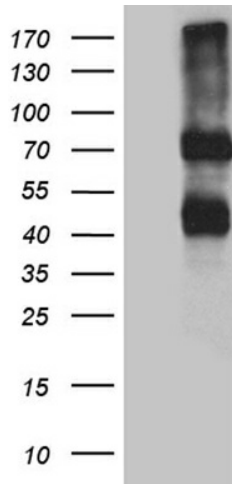
UniProt ID: [P14784](#)

Cytogenetics:	22q12.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Cytokine-cytokine receptor interaction, Endocytosis, Jak-STAT signaling pathway
MW:	61.1 kDa
Gene Summary:	The interleukin 2 receptor, which is involved in T cell-mediated immune responses, is present in 3 forms with respect to ability to bind interleukin 2. The low affinity form is a monomer of the alpha subunit and is not involved in signal transduction. The intermediate affinity form consists of an alpha/beta subunit heterodimer, while the high affinity form consists of an alpha/beta/gamma subunit heterotrimer. Both the intermediate and high affinity forms of the receptor are involved in receptor-mediated endocytosis and transduction of mitogenic signals from interleukin 2. The protein encoded by this gene represents the beta subunit and is a type I membrane protein. The use of alternative promoters results in multiple transcript variants encoding the same protein. The protein is primarily expressed in the hematopoietic system. The use by some variants of an alternate promoter in an upstream long terminal repeat (LTR) results in placenta-specific expression. [provided by RefSeq, Sep 2016]

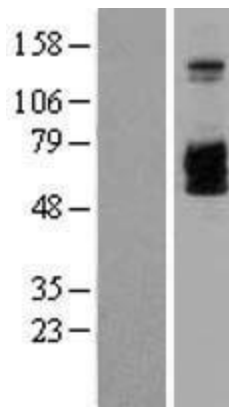
Product images:



Circular map for RC206591



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY IL2RB (Cat# RC206591, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-IL2RB antibody (Cat# [TA812264]). Positive lysates [LY400313] (100ug) and [LC400313] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400313]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206591 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).