

Product datasheet for RC206420

IL3RA (NM_002183) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: IL3RA (NM_002183) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: IL3RA
Synonyms: CD123; hIL-3Ra; IL3R; IL3RAY; IL3RX; IL3RY
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC206420 representing NM_002183
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGTCTCCTTTGGCTCAGCTGCTCCTGATCGCCCTGCCCTGTCTCCTGCAAACGAAGGAAGATCCAA
 ACCCACCAATCACGAACCTAAGGATGAAAGCAAAGGCTCAGCAGTTGACCTGGGACCTTAACAGAAATGT
 GACCGATATCGAGTGTGTTAAAGACGCCGACTATTCTATGCCGGCAGTGAACAATAGCTATTGCCAGTTT
 GGAGCAATTTCTTATGTGAAGTGACCAACTACACCGTCCGAGTGGCCAACCCACCATTCTCCACGTGGA
 TCCTCTTCCCTGAGAACAGTGGGAAGCCTTGGGCAGGTGCGGAGAATCTGACCTGCTGGATTTCATGACGT
 GGATTTCTTGAGCTGCAGCTGGGCGGTAGGCCCGGGGCCCCCGGACGTCACGACGACTGACTTGT
 AACGTTGCCAACAGGCGTCAACAGTACGAGTGTCTTCACTACAAAACGGATGCTCAGGGAACACGTATCG
 GGTGTCGTTTTCGATGACATCTCTCGACTCTCCAGCGGTTCTCAAAGTTCCACATCCTGGTGCGGGGCAG
 GAGCGCAGCCTTCGGTATCCCCTGCACAGATAAGTTTGTGCTTTTTACAGATTGAGATATTAACCTCCA
 CCCAACATGACTGCAAAGTGAATAAGACACATTCCTTTATGCACTGGAAAATGAGAAGTCATTTCAATC
 GCAAATTCGCTATGAGCTTCAGATACAAAAGAGAATGCAGCCTGTAATCACAGAACAGGTCAGAGACAG
 AACCTCCTCCAGCTACTCAATCCTGGAACGTACACAGTACAAAATAAGAGCCCGGAAAGAGTGTATGAA
 TTCTTTGAGCGCCTGGAGCACCCCGGCGCTTCGAGTGGCAGCAGGAGGGCGCAACACACAGTGCCT
 GGCGGACGTCGCTGATCGCGCTGGGACGCTGCTGGCCCTGGTCTGTGTCTTCGTGATCTGCAGAAAG
 GTATCTGGTGATGCAGAGACTCTTTCCCGCATCCCTCACATGAAAGACCCCATCGGTGACAGCTTCCAA
 AACGACAAGCTGGTGGTCTGGGAGGCGGCAAAGCCGGCCTGGAGGAGTGTCTGGTACTGAAGTACAGG
 TCGTGCAGAAAAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC206420 representing NM_002183
Red=Cloning site Green=Tags(s)

MVLLWL TLLLI ALPCLLQTKEDPNPITNLRMKAKAQQLTWDLNRNVTDIECVKDADYSMPAVNNSYCF
 GAISLCEVTNYTVRVANPPFSTWILFPENSGKPWAGAENLTCWIHDVDFLSCSWAVGPGAPADVQDLYL
 NVANRRQQYECLHYKTDAGTRIGCRFDDISRLSSGSQSSHILVRGRSAAFGIPCTDKFVVFVFSQIEILTP
 PNMTAKCNKTHSFMHWKMRSHFNKFRYELQIQKRMQPVITEQVRDRTSFQLLNPGTYTVQIRARERVYE
 FLSAWSTPQRFECDEEGANTRAWRTSLLI ALGTL LALVCVVICRRYLVMQRLFRIPHKDPIGDSFQ
 NDKLVVWEAGKAGLEECLVTEVQVVQKT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2855_d03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_002183

ORF Size: 1134 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_002183.4](#)

RefSeq Size: 1726 bp

RefSeq ORF: 1137 bp

Locus ID: 3563

UniProt ID: [P26951](#)

Cytogenetics: X;Y

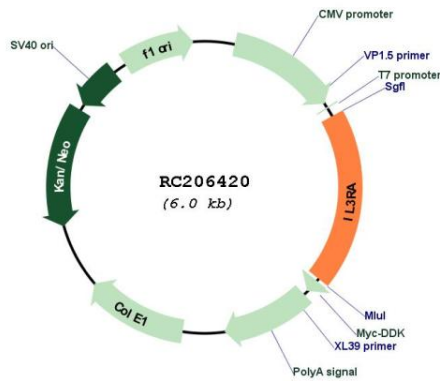
Protein Families: Transmembrane

Protein Pathways: Apoptosis, Cytokine-cytokine receptor interaction, Hematopoietic cell lineage, Jak-STAT signaling pathway

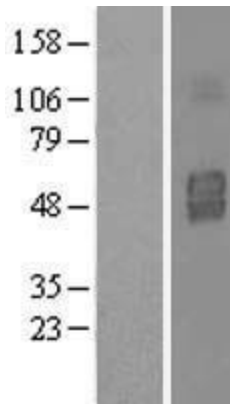
MW: 43.33 kDa

Gene Summary: The protein encoded by this gene is an interleukin 3 specific subunit of a heterodimeric cytokine receptor. The receptor is comprised of a ligand specific alpha subunit and a signal transducing beta subunit shared by the receptors for interleukin 3 (IL3), colony stimulating factor 2 (CSF2/GM-CSF), and interleukin 5 (IL5). The binding of this protein to IL3 depends on the beta subunit. The beta subunit is activated by the ligand binding, and is required for the biological activities of IL3. This gene and the gene encoding the colony stimulating factor 2 receptor alpha chain (CSF2RA) form a cytokine receptor gene cluster in a X-Y pseudoautosomal region on chromosomes X or Y. Alternatively spliced transcript variants encoding distinct isoforms have been found. [provided by RefSeq, Jun 2012]

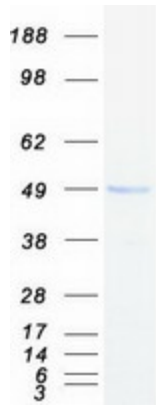
Product images:



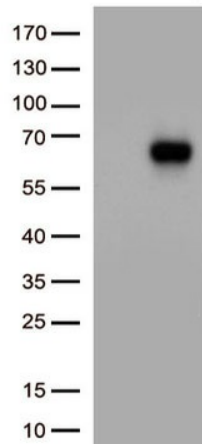
Circular map for RC206420



Western blot validation of overexpression lysate (Cat# [LY419481]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206420 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IL3RA protein (Cat# [TP306420]). The protein was produced from HEK293T cells transfected with IL3RA cDNA clone (Cat# RC206420) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY IL3RA (Cat# RC206420, 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-IL3RA antibody (Cat# [TA813796])(1:1000)