

Product datasheet for **RC209679**

IL12B (NM_002187) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	IL12B
Synonyms:	CLMF; CLMF2; IL-12B; IMD28; IMD29; NKSF; NKSF2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209679 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTGTCAACAGCAGTTGGTCATCTCTGGTTTTCCCTGGTTTTCTGGCATCTCCCTCGTGGCCATAT
 GGGAACTGAAGAAAGATGTTTATGTCTAGAAATTGGATTGGTATCCGGATGCCCTGGAGAAATGGTGGT
 CCTCACCTGTGACACCCCTGAAGAAGATGGTATCACCTGGACCTGGACCAGAGCAGTGAGGTCTTAGGC
 TCTGGCAAAACCTGACCATCCAAGTCAAAGAGTTGGAGATGCTGGCCAGTACACCTGTCACAAAGGAG
 GCGAGGTTCTAAGCCATTCGCTCCTGCTTTCACAAAAGGAAGATGGAATTTGGTCCACTGATATTTT
 AAAGGACCAGAAAAGAACCAAAATAAGACCTTTCTAAGATGCGAGGCCAAGAATTATTCTGGACGTTTC
 ACCTGCTGGTGGCTGACGACAATCAGTACTGATTTGACATTAGTGTCAAAGCAGCAGAGGCTCTTCTG
 ACCCCCAAGGGGTGACGTGCGGAGCTGCTACACTCTCTGCAGAGAGAGTCAGAGGGGACAACAAGGAGTA
 TGAGTACTCAGTGGAGTGCCAGGAGGACAGTGCCTGCCAGCTGCTGAGGAGAGTCTGCCATTGAGGTC
 ATGGTGGATGCCGTTCAAGCTCAAGTATGAAACTACACCAGCAGCTTCTTCATCAGGACATCATCA
 AACCTGACCCACCAAGAACTTGACGTGAAGCCATTAAGAATTCTCGGCAGGTGGAGGTCAGCTGGGA
 GTACCTGACACCTGGAGTACTCCATTCCTACTTCTCCCTGACATTCTGCGTTCAGGTCCAGGCAAG
 AGCAAGAGAGAAAAGAAAGATAGAGTCTTCACGACAAGACCTCAGCCACGGTCATCTGCCGCAAAATG
 CCAGCATTAGCGTGGGGCCAGGACCGCTACTATAGCTCATCTTGGAGCGAATGGGCATCTGTGCCCTG
 CAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC209679 protein sequence
 Red=Cloning site Green=Tags(s)

MCHQQLVISWFLVFLASPLVAIWELKKDYYVVELDWYPDAPGEMVLTCDTPEEDGITWTLDQSSEVLG
 SGKTLTIQVKEFGDAGQYTCHKGGEVLSHSLLLHHKKEDGIWSTDILKDQKEPKNKTFLRCEAKNYSGRF
 TCWWLTISTDLTFSVKSSRGSSDPQGVTCGAATLSAERVGRDNKEYEYSVEQCEDSACPAAEESLPIEV
 MVDVHKLKYENYTSSSFIRDIIKPDPPKNLQLKPLKNSRQVEVSWEYPTWSTPHSYFSLTFCVQVQGK
 SKREKKDRVFTDKTSATVICRKNASISVRAQDRYSSSWSEWASVPCS

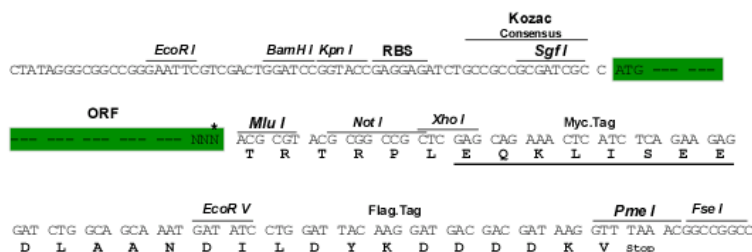
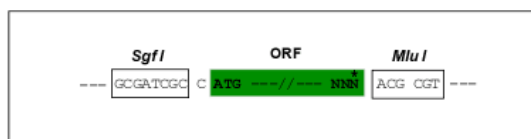
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6142_h02.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM 002187

ORF Size: 984 bp

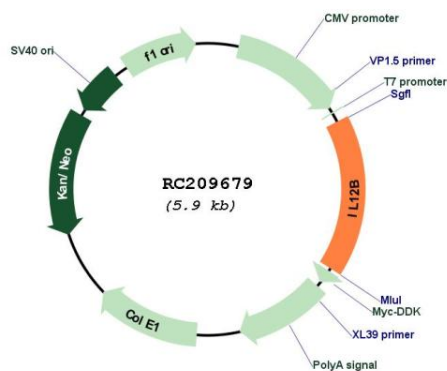
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

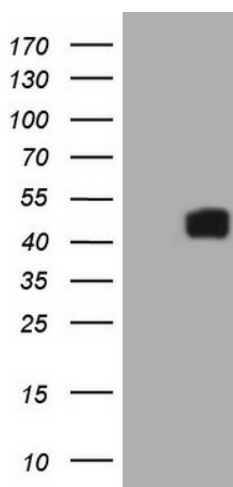
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none"> 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:	<u>NM_002187.3</u>
RefSeq Size:	2347 bp
RefSeq ORF:	987 bp
Locus ID:	3593
UniProt ID:	<u>P29460</u>
Cytogenetics:	5q33.3
Domains:	FN3
Protein Families:	Druggable Genome, Secreted Protein, Transmembrane
Protein Pathways:	Allograft rejection, Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, RIG-I-like receptor signaling pathway, Toll-like receptor signaling pathway, Type I diabetes mellitus
MW:	37.2 kDa
Gene Summary:	<p>This gene encodes a subunit of interleukin 12, a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. Interleukin 12 is a disulfide-linked heterodimer composed of the 40 kD cytokine receptor like subunit encoded by this gene, and a 35 kD subunit encoded by IL12A. This cytokine is expressed by activated macrophages that serve as an essential inducer of Th1 cells development. This cytokine has been found to be important for sustaining a sufficient number of memory/effector Th1 cells to mediate long-term protection to an intracellular pathogen. Overexpression of this gene was observed in the central nervous system of patients with multiple sclerosis (MS), suggesting a role of this cytokine in the pathogenesis of the disease. The promoter polymorphism of this gene has been reported to be associated with the severity of atopic and non-atopic asthma in children. [provided by RefSeq, Jul 2008]</p>

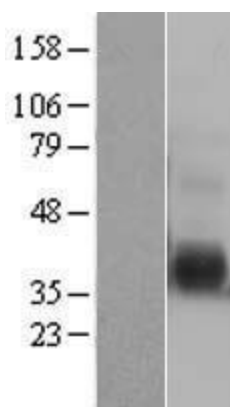
Product images:



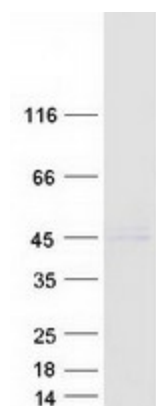
Circular map for RC209679



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY IL12B (Cat# RC209679, 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-IL12B (Cat# [TA807426])(1:2000). Positive lysates [LY400792] (100ug) and [LC400792] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400792]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209679 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IL12B protein (Cat# [TP309679]). The protein was produced from HEK293T cells transfected with IL12B cDNA clone (Cat# RC209679) using MegaTran 2.0 (Cat# [TT210002]).