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Product datasheet for RC218057

IL17 (IL17A) (NM_002190) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IL17 (IL17A) (NM_002190) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IL17
Synonyms:	CTLA-8; CTLA8; IL-17; IL-17A; IL17; ILA17
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC218057 representing NM_002190
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTCCTGGGAAGACCTCATTGGTATCACTGCTACTGCTGCTGAGCCTGGAGGCCATAGTGAAGGCAG
GAATCACAATCCCACGAAATCCAGGATGCCCAAATTCTGAGGACAAGAACTTCCCCCGGACTGTGATGGT
CAACCTGAACATCCATAACCGGAATACCAATACCAATCCCAAAAGGTCCTCAGATTACTACAACCGATCC
ACCTCACCTTGGAATCTCCACCGCAATGAGGACCCTGAGAGATATCCCTCTGTGATCTGGGAGGCAAAGT
GCCGCCACTTGGGCTGCATCAACGCTGATGGGAACGTGGACTACCACATGAACTCTGTCCCCATCCAGCA
AGAGATCCTGGTCCTGCGCAGGGAGCCTCCACACTGCCCCAACTCCTTCCGGCTGGAGAAGATACTGGTG
TCCGTGGGCTGCACCTGTGTCACCCCGATTGTCCACCATGTGGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218057 representing NM_002190
Red=Cloning site Green=Tags(s)

MTPGKTSLVSLLLLLSLEAIVKAGITIPRNPGCPNSEDKNFPRTVMVNLNIHNRNTNTNPKRSSDYYNRS
TSPWNLHRNEDPERYPSVIWEAKCRHLGCINADGNVDYHMNSVPIQQEILVLRREPPHCPNSFRLEKILV
SVGCTCVTPIVHHVA

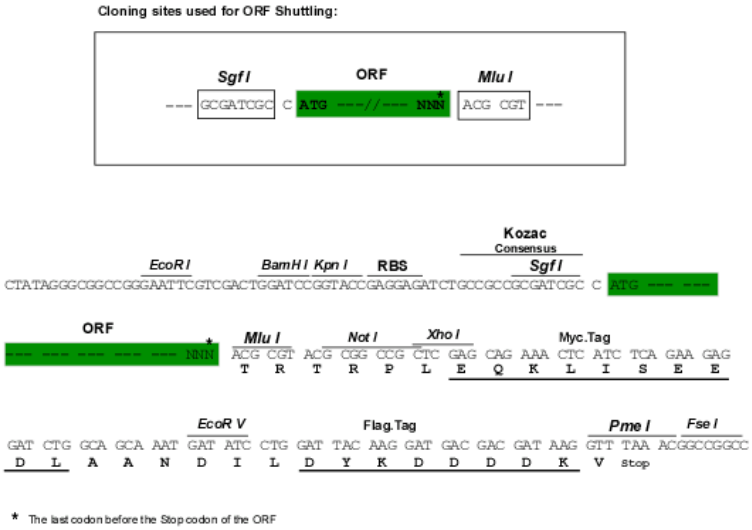
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2564_b05.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002190

ORF Size: 465 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_002190.3

RefSeq Size: 1859 bp

RefSeq ORF: 468 bp

Locus ID: 3605

UniProt ID: Q16552

Cytogenetics: 6p12.2

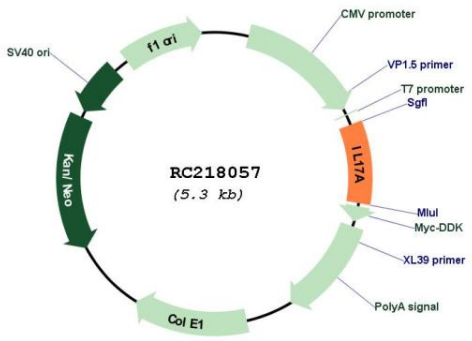
Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: Cytokine-cytokine receptor interaction

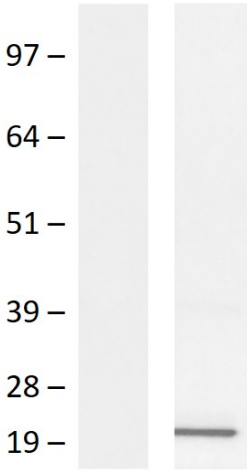
MW: 17.5 kDa

Gene Summary: This gene is a member of the IL-17 receptor family which includes five members (IL-17RA-E) and the encoded protein is a proinflammatory cytokine produced by activated T cells. IL-17A-mediated downstream pathways induce the production of inflammatory molecules, chemokines, antimicrobial peptides, and remodeling proteins. The encoded protein elicits crucial impacts on host defense, cell trafficking, immune modulation, and tissue repair, with a key role in the induction of innate immune defenses. This cytokine stimulates non-hematopoietic cells and promotes chemokine production thereby attracting myeloid cells to inflammatory sites. This cytokine also regulates the activities of NF-kappaB and mitogen-activated protein kinases and can stimulate the expression of IL6 and cyclooxygenase-2 (PTGS2/COX-2), as well as enhance the production of nitric oxide (NO). IL-17A plays a pivotal role in various infectious diseases, inflammatory and autoimmune disorders, and cancer. High levels of this cytokine are associated with several chronic inflammatory diseases including rheumatoid arthritis, psoriasis and multiple sclerosis. The lung damage induced by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is to a large extent, a result of the inflammatory response promoted by cytokines such as IL17A. [provided by RefSeq, Sep 2020]

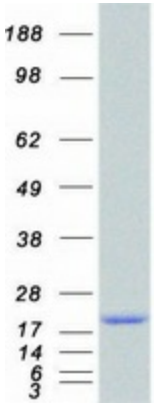
Product images:



Circular map for RC218057



Western blot validation of overexpression lysate (Cat# [LY400795]) using anti-DDK antibody (Cat# [TA592569]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218057 using transfection reagent PEI.



Coomassie blue staining of purified IL17A protein (Cat# [TP318057]). The protein was produced from HEK293T cells transfected with IL17A cDNA clone (Cat# RC218057) using MegaTran 2.0 (Cat# [TT210002]).