

## Product datasheet for **RC219294**

### IL15 (NM\_172174) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** IL15 (NM\_172174) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** IL15  
**Synonyms:** IL-15; Interleukin 15; MGC9721; OTTHUMP00000164617  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC219294 representing NM\_172174  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGAATTTGAAACCACATTTGAGAAGTATTTCCATCCAGTGCTACTTGTGTTTACTTCTAAACAGTC  
ATTTTCTAACTGAAGCTGGCATTGATGCTTTCATTTGGGCTGTTTCAGTGCAGGGCTTCTAAAACAGA  
AGCCAACGGGTGAATGTAATAAGTGATTTGAAAAAATTGAAGATCTTATTCAATCTATGCATATTGAT  
GCTACTTTATACGAAAGTGATGTTCCACCCAGTTGCAAAGTAACAGCAATGAAGTGCTTCTCTTGG  
AGTTACAAGTTATTTCACTTGAGTCCGGAGATGCAAGTATTCATGATACAGTAGAAAATCTGATCATCCT  
AGCAAACAACAGTTTGTCTTCTAATGGGAATGTAACAGAATCTGGATGCAAAGAATGTGAGGAAGCTGGAG  
GAAAAAATATTAAGAATTTTTGCAGAGTTTTGTACATATTGCCAAATGTTTCATCAACACTTCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC219294 representing NM\_172174  
Red=Cloning site Green=Tags(s)

MRISKPHLRISISIQCYLCLLLNSHFLTEAGIHVFIILGCF SAGLPKTEANWVVISDLKKIEDLIQSMHID  
ATLYTESDVHPSCKVTAMKCFLLLELQVISLES GDASIHDTVENL IILANNSLSSNGNVTESGCKECEELE  
EKNIKEFLQSFVHIVQMFINTS

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

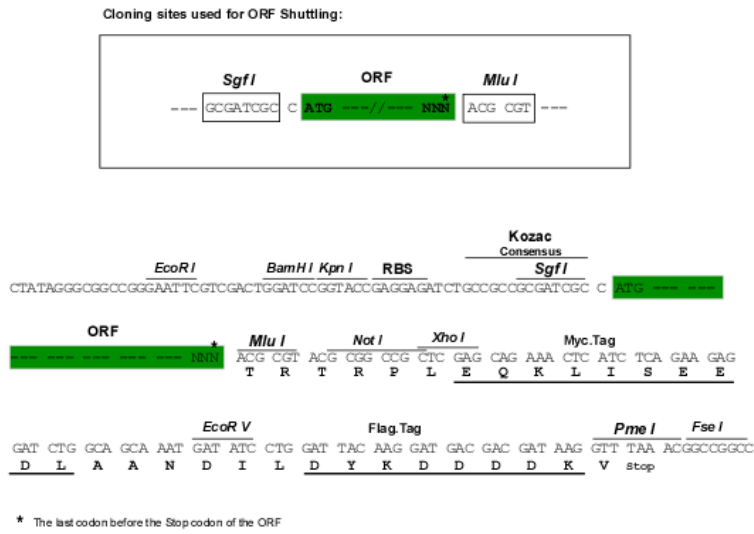
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6120\\_b01.zip](https://cdn.origene.com/chromatograms/mk6120_b01.zip)



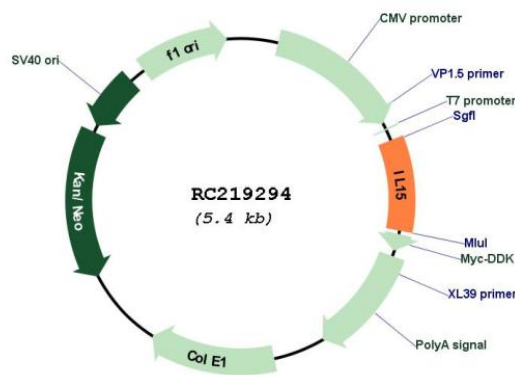
[View online >](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_172174

ORF Size: 486 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_172174.2](#)

**RefSeq Size:** 1969 bp

**RefSeq ORF:** 488 bp

**Locus ID:** 3600

**Cytogenetics:** 4q31.21

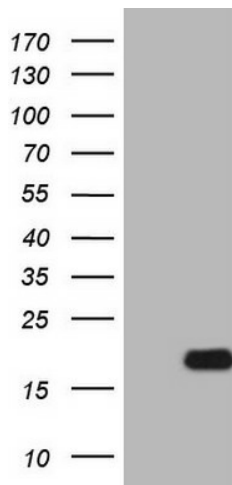
**Protein Families:** Druggable Genome, Secreted Protein

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

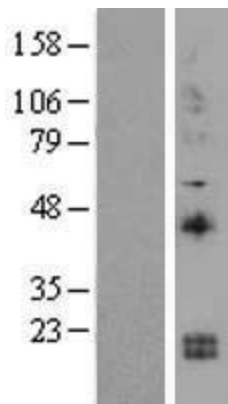
**MW:** 14.7 kDa

**Gene Summary:**

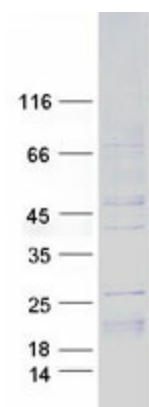
The protein encoded by this gene is a cytokine that regulates T and natural killer cell activation and proliferation. This cytokine and interleukine 2 share many biological activities. They are found to bind common hematopoietin receptor subunits, and may compete for the same receptor, and thus negatively regulate each other's activity. The number of CD8+ memory cells is shown to be controlled by a balance between this cytokine and IL2. This cytokine induces the activation of JAK kinases, as well as the phosphorylation and activation of transcription activators STAT3, STAT5, and STAT6. Studies of the mouse counterpart suggested that this cytokine may increase the expression of apoptosis inhibitor BCL2L1/BCL-x(L), possibly through the transcription activation activity of STAT6, and thus prevent apoptosis. Alternatively spliced transcript variants of this gene have been reported. [provided by RefSeq, Feb 2011]

**Product images:**


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY IL15 (Cat# RC219294, 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-IL15 (Cat# [TA807772])(1:500). Positive lysates [LY403532] (100ug) and [LC403532] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403532]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219294 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IL15 protein (Cat# [TP319294]). The protein was produced from HEK293T cells transfected with IL15 cDNA clone (Cat# RC219294) using MegaTran 2.0 (Cat# [TT210002]).