

## **Product datasheet for RC208274L1**

## IL7 (NM\_000880) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: IL7 (NM\_000880) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: IL7

Synonyms: IL-7

Mammalian Cell None

Selection:

Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

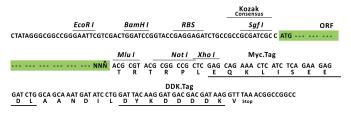
ORF Nucleotide The ORF insert of this clone is exactly the same as(RC208274).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





 $<sup>\</sup>ensuremath{^*}$  The last codon before the Stop codon of the ORF.

ACCN: NM\_000880

ORF Size: 531 bp



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### IL7 (NM\_000880) Human Tagged Lenti ORF Clone - RC208274L1

**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: <u>NM 000880.2</u>

 RefSeq Size:
 2089 bp

 RefSeq ORF:
 534 bp

 Locus ID:
 3574

 UniProt ID:
 P13232

Cytogenetics: 8q21.13

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

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

MW: 20.2 kDa

**Gene Summary:** The protein encoded by this gene is a cytokine important for B and T cell development. This

cytokine and the hepatocyte growth factor (HGF) form a heterodimer that functions as a prepro-B cell growth-stimulating factor. IL7 is found to be a cofactor for V(D)J rearrangement of the T cell receptor beta (TCRB) during early T cell development. This cytokine can be produced locally by intestinal epithelial and epithelial goblet cells, and may serve as a regulatory factor for intestinal mucosal lymphocytes. IL7 plays an essential role in lymphoid cell survival, and in

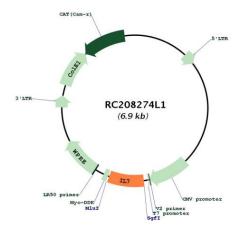
the maintenance of naive and memory T cells. Alternative splicing results in multiple

transcript variants encoding distinct isoforms. Additional splice variants have been described but their presence in normal tissues has not been confirmed. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection can be a potent inducer of proinflammatory cytokines and chemokines which may defend against the infection, but may also mediate destructive lung injury. Elevated serum IL7 levels, together with several other circulating cytokines and chemokines, has been found to be associated with the severity of Coronavirus

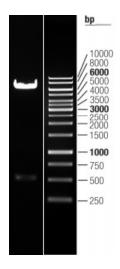
Disease 19 (COVID-19). [provided by RefSeq, Jul 2020]



# **Product images:**



Circular map for RC208274L1



Double digestion of RC208274L1 using Sgfl and Mlul