

## Product datasheet for **SC306756**

### IL4 (NM\_172348) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	IL4 (NM_172348) Human Untagged Clone
Tag:	Tag Free
Symbol:	IL4
Synonyms:	BCGF-1; BCGF1; BSF-1; BSF1; IL-4
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF sequence for NM_172348 edited ATGGGTCTCACCTCCCAACTGCTTCCCCCTCTGTTCTTCTGCTAGCATGTGCCGGCAAC TTTGTCCACG GACACAAGTGCATATCACCTTACAGGAGATCATCAAACTTTGAACA GCCTCACAGAGCAGAAGAACAC AACTGAGAAGGAAACCTTCTGCAGGGCTGCGACTGT GCTCCGGCAGTTCTACAGCCACCATGAGAAGGAC ACTCGCTGCCTGGGTGCGACTGCA CAGCAGTTCACAGGCACAAGCAGCTGATCCGATTCTGAAACGGC TCGACAGGAACC TCTGGGGCTGGCGGGCTTGAATTCCTGTCTGTGAAGGAAGCCAACCAGAGTACGTT GGAAAACCTTCTGGAAAGGCTAAAGACGATCATGAGAGAGAAATATTCAAAGTGTTCGAG CTGA
Restriction Sites:	Please inquire
ACCN:	NM_172348
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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).



[View online »](#)

**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\\_172348.1](#), [NP\\_758858.1](#)

**RefSeq Size:** 873 bp

**RefSeq ORF:** 414 bp

**Locus ID:** 3565

**UniProt ID:** [P05112](#)

**Cytogenetics:** 5q31.1

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

**Protein Pathways:** Allograft rejection, Asthma, Autoimmune thyroid disease, Cytokine-cytokine receptor interaction, Fc epsilon RI signaling pathway, Hematopoietic cell lineage, Jak-STAT signaling pathway, T cell receptor signaling pathway

**Gene Summary:** The protein encoded by this gene is a pleiotropic cytokine produced by activated T cells. This cytokine is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. This gene, IL3, IL5, IL13, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL13. This gene, IL13 and IL5 are found to be regulated coordinately by several long-range regulatory elements in an over 120 kilobase range on the chromosome. IL4 is considered an important cytokine for tissue repair, counterbalancing the effects of proinflammatory type 1 cytokines, however, it also promotes allergic airway inflammation. Moreover, IL-4, a type 2 cytokine, mediates and regulates a variety of human host responses such as allergic, anti-parasitic, wound healing, and acute inflammation. This cytokine has been reported to promote resolution of neutrophil-mediated acute lung injury. In an allergic response, IL-4 has an essential role in the production of allergen-specific immunoglobulin (Ig) E. This pro-inflammatory cytokine has been observed to be increased in COVID-19 (Coronavirus disease 2019) patients, but is not necessarily associated with severe COVID-19 pathology. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Aug 2020]

**Transcript Variant:** This variant (2) lacks an in-frame exon in the 5' region, compared to variant 1, resulting an isoform (2) that lacks an internal region, as compared to isoform 1.