

## Recombinant Full Length Human IL4 Protein, C-Flag-tagged

Cat. No. IL4-1801HFL    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <b>Product Overview</b> | Recombinant Full Length Human IL4 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>      | <p>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</p> |

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|                         |                                                                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | associated with severe COVID-19 pathology. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported.                                                                        |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                       |
| <b>Molecular Mass</b>   | 14.9 kDa                                                                                                                                                                                                                    |
| <b>AA Sequence</b>      | MGLTSQLLPPLFFLLACAGNFVGHKCDITLQEIIKTLNSLTEQKTLCTELTVTDIFAAS<br>KNTTEKETFC RAATVLRQFYSHHEKDTRCLGATAQQFHRHKQLIRFLKRLDRNLWG<br>LAGLNSCPVKEANQSTLENFLERL KTIMREKYSKCSS TRTRPLEQKLISEEDLAAND<br>ILDYKDDDDKV                      |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                                                                                                |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.                                                                               |
| <b>Storage</b>          | Store at -80 centigrade.                                                                                                                                                                                                    |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                                                                                                           |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                                                                                                            |
| <b>Protein Families</b> | Druggable Genome, Secreted Protein                                                                                                                                                                                          |
| <b>Protein Pathways</b> | 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 |
| <b>Full Length</b>      | Full L.                                                                                                                                                                                                                     |

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## GENE INFORMATION

**Gene Name** IL4 interleukin 4 [ Homo sapiens (human) ]

**Official Symbol** IL4

**Synonyms** BSF1; IL-4; BCGF1; BSF-1; BCGF-1

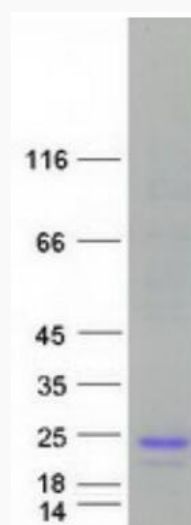
**Gene ID** 3565

**mRNA Refseq** NM\_000589.4

**Protein Refseq** NP\_000580.1

**MIM** 147780

**UniProt ID** P05112



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Coomassie blue staining of purified IL4 protein.

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