

## Product datasheet for **TP309972L**

### IL4 (NM\_000589) Human Recombinant Protein

#### Product data:

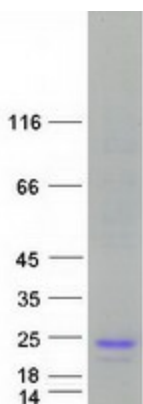
Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Homo sapiens interleukin 4 (IL4), transcript variant 1, 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC209972 representing NM_000589 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)
	MGLTSQLLPPLFFLLACAGNFVHGHKCDITLQEIIKTLNSLTEQKTLCTELTVTDIFAASKNNTTEKETFC RAATVLRQFYSHHEKDTRCLGATAQQFHRHKQLIRFLKRLDRNLWGLAGLNSCPVKEANQSTLENFLERL KTIMREKYSKCSS
	<b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b>
Tag:	C-Myc/DDK
Predicted MW:	14.9 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<u><a href="#">NP_000580</a></u>
Locus ID:	3565
UniProt ID:	<u><a href="#">P05112</a></u> , <u><a href="#">D4HNR6</a></u>
RefSeq Size:	921



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<b>Cytogenetics:</b>	5q31.1
<b>RefSeq ORF:</b>	459
<b>Synonyms:</b>	BCGF-1; BCGF1; BSF-1; BSF1; IL-4
<b>Summary:</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 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]</p>
<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

### Product images:



Coomassie blue staining of purified IL4 protein (Cat# [TP309972]). The protein was produced from HEK293T cells transfected with IL4 cDNA clone (Cat# [RC209972]) using MegaTran 2.0 (Cat# [TT210002]).