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Product datasheet for TP309972SE

IL4 (NM_000589) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human interleukin 4 (IL4), transcript variant 1, secretory expressed in HEK293T cells, 20ug
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC209972 representing NM_000589 Red=Cloning site Green=Tags(s) MGLTSQLLPPLFFLLACAGNFVHGHKCDITLQEIIKTLNSLTEQKTLCTELTVTDIFAASKNTTEKETFC RAATVLRQFYSHHEKDTRCLGATAQQFHRHKQLIRFLKRLDRNLWGLAGLNSCPVKEANQSTLENFLERL KTIMREKYSKCSS TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Predicted MW:	18.6 kDa
Concentration:	>50 ug/mL as determined by microplate Bradford method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25mM Tris-HCl, pH7.3, 100mM glycine, 10% glycerol
Note:	For culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for at least 1 year from receipt of products under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_000580
Locus ID:	3565
UniProt ID:	P05112, D4HNR6
RefSeq Size:	921
Cytogenetics:	5q31.1

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RefSeq ORF: 459

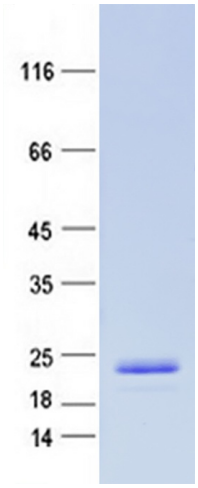
Synonyms: BCGF-1; BCGF1; BSF-1; BSF1; IL-4

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 immunoglobin (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]

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

Product images:



Coomassie blue staining of purified IL4 protein (Cat #TP309972SE). The protein was produced from mammalian cells transfected with IL4 cDNA clone (Cat #[RC209972]).