

PRODUCT INFORMATION

Target	IL4
Synonyms	BSF1;BCGF1;BSF-1;BCGF-1;IL-4
Description	Recombinant Human IL4 Protein with C-terminal mouse Fc tag
Delivery	In Stock
Uniprot ID	P05112
Expression Host	HEK293
Tag	C-mouse Fc Tag
Molecular Characterization	IL4(His25-Ser153) mFc(Pro99-Lys330)
Molecular Weight	The protein has a predicted molecular mass of 41.2 kDa after removal of the signal peptide. The apparent molecular mass of IL4-mFc is approximately 35-55 kDa due to glycosylation.
Purity	The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.
Formulation & Reconstitution	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
Storage&Shipping	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
Sterility	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 µm) prior to use.



Background

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]

Usage

Research use only

Conjugate

Unconjugated





Figure 1. Human IL4 Protein, mFc Tag on SDS-PAGE under reducing condition.

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