

Active Recombinant Human IL4 Protein, His-tagged

Cat. No. IL4-001H Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant human IL-4, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

Species

Human

Source

HEK293

Description

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

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	associated with severe COVID-19 pathology.
Form	Liquid
Bio-activity	Measured in a cell proliferation assay using TF-1 human erythroleukemic cell. The ED50 range ≤ 0.5 ng/mL.
Molecular Mass	16.1 kDa
AA Sequence	HKCDITLQEIIKTLNSLTEQKTLCTELTVTDIFAASKNTTEKETFCRAATVLRQFYSHHE KDTRCLGATAQQFHRHKQLIRFLKRLDRNLWGLAGLNSCPVKEANQSTLENFLERL KTIMREKYSKCSS
Endotoxin	< 1 EU/ μ g of protein (determined by LAL method)
Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE, Bioactivity
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	0.5 mg/mL (determined by Absorbance at 280nm)
Storage Buffer	Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol
GENE INFORMATION	
Gene Name	IL4 interleukin 4 [Homo sapiens (human)]
Official Symbol	IL4

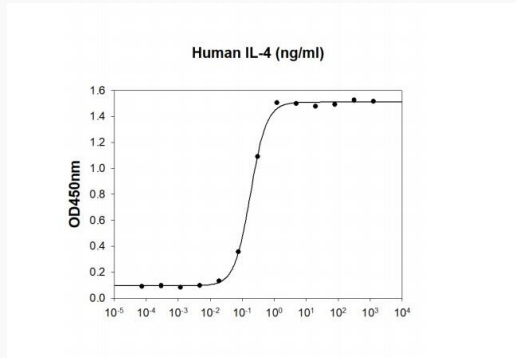
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Synonyms	IL4; interleukin 4; BSF1; IL-4; BCGF1; BSF-1; BCGF-1; interleukin-4; B cell growth factor 1; B_cell stimulatory factor 1; binetrakin; interleukin 4 variant 2; lymphocyte stimulatory factor 1; pitrakinra
Gene ID	3565
mRNA Refseq	NM_000589
Protein Refseq	NP_000580
MIM	147780
UniProt ID	P05112
SDS-PAGE	 <p>3 µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain</p>

Biological Activity



Human IL-4 in a cell proliferation assay using TF-1 human erythroleukemic cell. The ED50 range ≤ 0.5 ng/mL.

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