

Active Recombinant Human interleukin 4 Protein, Tag Free

Cat. No. IL4-158H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human IL-4 protein (P05112) (His 25-Ser 163) without tag was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	25-163aa
Description	Cytokine secreted primarily by mast cells, T-cells, eosinophils, and basophils that plays a role in regulating antibody production, hematopoiesis and inflammation, and the development of effector T-cell responses. Induces the expression of class II MHC molecules on resting B-cells. Enhances both secretion and cell surface expression of IgE and IgG1. Regulates also the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. Positively regulates IL31RA expression in macrophages. Stimulates autophagy in dendritic cells by interfering with mTORC1 signaling and through the induction of RUFY4. In addition, plays a critical role in higher functions of the normal brain, such as memory and learning. Upon binding to IL4, IL4R receptor dimerizes either with the common IL2R gamma chain/IL2RG to produce the type 1 signaling complex, located mainly on hematopoietic cells, or with the IL13RA1 to produce the type 2 complex, which is expressed also on nonhematopoietic cells. Engagement of both types of receptors initiates JAK3 and to a lower extend JAK1 phosphorylation leading to activation of the signal transducer and activator of transcription 6/STAT6.

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Tag	Non
Bio-activity	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 0.01-0.1 ng/mL.
Molecular Mass	15 kDa
Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name	IL4 interleukin 4 [Homo sapiens (human)]
Official Symbol	IL4
Synonyms	IL4; interleukin 4; interleukin-4; B cell growth factor 1; B_cell stimulatory factor 1; BCGF 1; BCGF1; BSF1; IL 4; lymphocyte stimulatory factor 1; MGC79402; binetrakin; pitrakinra; IL-4; BSF-1; BCGF-1;
Gene ID	3565

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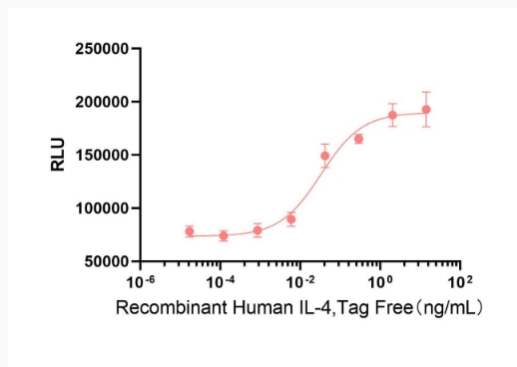
mRNA Refseq NM_000589

Protein Refseq NP_000580

MIM 147780

UniProt ID P05112

Activity



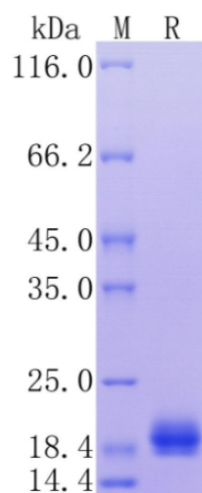
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**Protein on SDS-
PAGE under
reducing (R)
condition.**



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