

#### **Synonym**

IL4,BCGF1,BSF1

#### Source

Mouse IL-4, His Tag(IL4-M52H5) is expressed from human 293 cells (HEK293). It contains AA His 21 - Ser 140 (Accession # <u>P07750-1</u>). Predicted N-terminus: His 21

#### **Molecular Characterization**

IL-4(His 21 - Ser 140) P07750-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 15.4 kDa. The protein migrates as 17-20 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### **Endotoxin**

Less than 1.0 EU per µg by the LAL method.

### **Purity**

>95% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from  $0.22~\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

## Storage

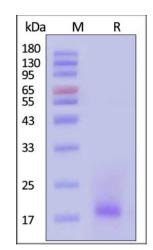
For long term storage, the product should be stored at lyophilized state at -20 $^{\circ}$ C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## **SDS-PAGE**



Mouse IL-4, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

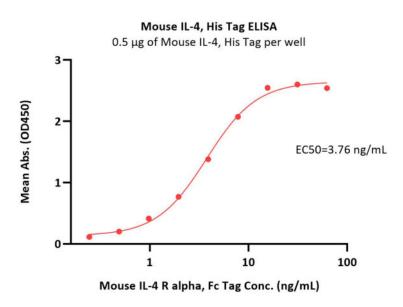
## **Bioactivity-ELISA**



## Mouse IL-4 Protein, His Tag

Catalog # IL4-M52H5





Immobilized Mouse IL-4, His Tag (Cat. No. IL4-M52H5) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Mouse IL-4 R alpha, Fc Tag (Cat. No. ILR-M5252) with a linear range of 0.2-16 ng/mL (QC tested).

# Background

Interleukin-4, is a cytokine that induces differentiation of naive helper T cells (Th0 cells to Th2 cells). In the presence of IL-4 and IL-13, cytokines that are produced in a Th-2 type response, particularly during allergy and parasitic infections, macrophages become differentially activated, And 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. Recently, researcher found that the cytokine IL-4 plays a key role in development of innate CD8+ T cells in the thymus of several gene-deficient mouse strains, including Itk, KLF2, CBP and Id3, without previous exposure to antigen.

# **Clinical and Translational Updates**

