## Mouse IL-13 Protein, His Tag

Catalog # IL3-M5249



#### Synonym

IL13, ALRH, BHR1, MGC116786, MGC116788, MGC116789, P600, Interleukin-13

#### Source

Mouse IL-13, His Tag(IL3-M5249) is expressed from human 293 cells (HEK293). It contains AA Ala 19 - Phe 131 (Accession # <u>P20109-1</u>). Predicted N-terminus: His

# **Molecular Characterization**

IL-13(Ala 19 - Phe 131) Poly-his P20109-1

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

The protein has a calculated MW of 14.2 kDa. The protein migrates as 16-30 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method / rFC method.

# Purity

>90% 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°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;
- $70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**

kDa	М	R
250.0 150.0		
100.0 70.0	_	
50.0 40.0	=	
30.0	_	-
20.0	-	in the second se
15.0	-	(and a second
10.0 5.0		
5.0		

Mouse IL-13, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

#### **Bioactivity-ELISA**



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Immobilized Mouse IL-13, His Tag (Cat. No. IL3-M5249) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Mouse IL-13RA1, Fc Tag (Cat. No. IL1-M5258) with a linear range of 0.3-5 ng/mL (QC tested).

#### Background

Interleukin 13 (IL13) is also known as ALRH, BHR1and P600, is a single-chain glycosylated polypeptide, and is a cytokine critical in regulating inflammatory and immune responses. IL13 is secreted by many cell types, but especially by T helper type 2 (Th2) cells. IL-13 induces its effects through a multi-subunit receptor that includes the alpha chain of the IL-4 receptor (IL-4R $\alpha$ ) and at least one of two known IL-13-specific binding chains. The functions of IL-13 overlap considerably with those of IL-4, especially with regard to changes induced on hematopoietic cells, but these effects are probably less important given the more potent role of IL-4. IL-13 induces matrix metalloproteinases (MMPs) as part of a mechanism that protects against excessive allergic inflammation that predisposes to asphyxiation. IL-13 induces many features of allergic lung disease, including airway hyperresponsiveness, goblet cell metaplasia and mucus hypersecretion, which all contribute to airway obstruction.



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