

Recombinant Human IL13 protein, His-tagged

Cat. No. IL13-3589H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL13 (Gly21-Asn132) protein was fused to His-tag at C-terminus and expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	Gly21-Asn132
Description	<p>Interleukin 13 (IL13) is also known as ALRH, BHR1 and 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-4Rα) 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.</p>
Predicted N Terminal	Gly21
Form	Lyophilized from 0.22

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	µm filtered solution in PBS, pH7.4, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 14.2 kDa. The protein migrates as 15 kDa and 25-35 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU per µg by the LAL method.
Purity	>90% as determined by SDS-PAGE.
Storage	<p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 to -70 centigrade for 12 months in lyophilized state;</p> <p>-70 centigrade for 3 months under sterile conditions after reconstitution.</p>
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.
GENE INFORMATION	
Gene Name	IL13
Official Symbol	IL13
Synonyms	IL13; interleukin 13; interleukin-13; allergic rhinitis; ALRH; BHR1; Bronchial hyperresponsiveness 1 (bronchial asthma); IL 13; MGC116786; MGC116788; MGC116789; P600; Bronchial hyperresponsiveness-1 (bronchial asthma); IL-13
Gene ID	3596

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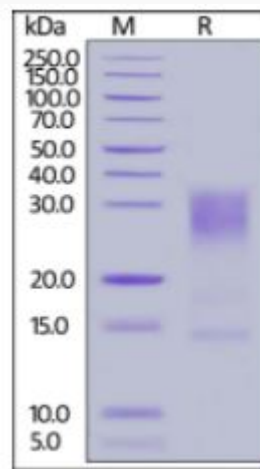
mRNA Refseq [NM_002188](#)

Protein Refseq [NP_002179](#)

MIM [147683](#)

UniProt ID [P35225](#)

SDS-PAGE of IL13-3589H



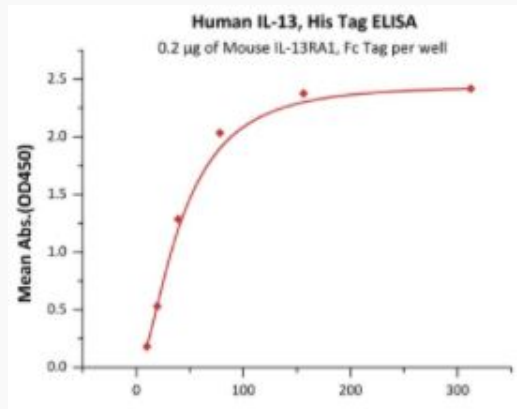
Human IL-13, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

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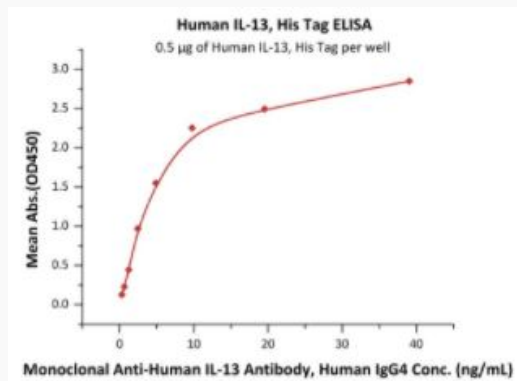
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**Bioactivity-ELISA of
IL13-3589H**



Immobilized Mouse IL-13RA1, Fc Tag at 2 µg/mL (100 µL/well) can bind Human IL-13, His Tag with a linear range of 5-39 ng/mL (QC tested).

Bioactivity-ELISA



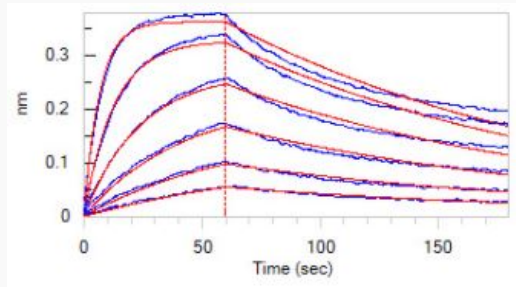
Immobilized Human IL-13, His Tag at 5 µg/mL (100 µL/well) can bind Monoclonal Anti-Human IL-13 Antibody, Human IgG4 with a linear range of 0.3-5 ng/mL (Routinely tested).

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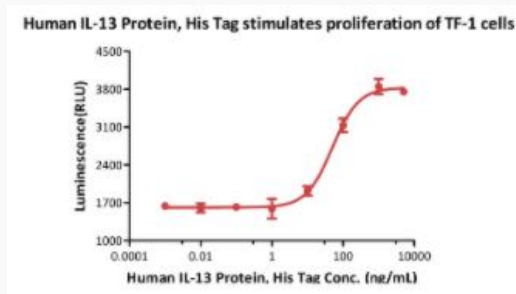
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**Bioactivity-BLI of
IL13-3589H**




Loaded Mouse IL-13RA1, Fc Tag on Protein A Biosensor, can bind Human IL-13, His Tag with an affinity constant of 22.5 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).


**Bioactivity-Cell
based assay of IL13-
3589H**



Human IL-13, His Tag stimulates proliferation of TF-1 cells. The EC50 for this effect is 0.05-0.08 µg/mL (Routinely tested).

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