Animal-Free IL-13 Protein, Mouse (His)

Cat. No.:	HY-P700192AF
Synonyms:	Interleukin-13; IL-13; T-Cell Activation Protein P600; IL13; IL-13
Species:	Mouse
Source:	E. coli
Accession:	P20109 (P22-F131)
Gene ID:	16163
Molecular Weight:	Approximately 13.06 kDa

PROPERTIES

AA Sequence	M P V P R S V S L P L T L K E L I E E L S N I T Q D Q T P L C N G S M V W S V D L A A G G F C V A L D S L T N I S N C N A I Y R T Q R I L H G L C N R K A P T T V S S L P D T K I E V A H F I T K L L S Y T K Q L F R H G P F
Biological Activity	Measure by its ability to induce TF-1 cells proliferation.The ED_{50} for this effect is<4 ng/mL.The specific activity of recombinant mouse IL-13 is >$2.5x10^5$ IU/mg
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 7.4.
Endotoxin Level	<0.1 EU per 1 μg of the protein by the LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	IL-13 Protein assumes pivotal roles in allergic inflammation and the immune response to parasite infection. It synergizes with IL2 in regulating interferon-gamma synthesis, stimulating B-cell proliferation, and activating eosinophils, basophils, and mast cells. Beyond its immunological functions, IL-13 plays a crucial role in controlling IL33 activity by modulating the production of transmembrane and soluble forms of interleukin-1 receptor-like 1/IL1RL1. It demonstrates the capacity to antagonize Th1-driven proinflammatory immune responses and downregulates the synthesis of various proinflammatory cytokines, including IL1, IL6, IL10, IL12, and TNF-alpha, partly through the suppression of NF-kappa-B. Not confined to hematopoietic cells, IL-13 also acts on nonhematopoietic cells such as endothelial cells, inducing vascular cell adhesion

protein 1/VCAM1, which is crucial in the recruitment of eosinophils. Its biological effects are mediated through receptors comprising the IL4R chain and the IL13RA1 chain, activating JAK1 and TYK2, ultimately leading to the activation of STAT6. Besides IL13RA1, another receptor, IL13RA2, acts as a high-affinity decoy for IL-13, mediating internalization and depletion of extracellular IL-13. IL-13 interacts directly with IL13RA2, further illustrating the complexity of its regulatory mechanisms.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA