

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

Cat. No.:	HY-P700102AF
Synonyms:	NC30
Species:	Human
Source:	E. coli
Accession:	P35225 (G35-N146)
Gene ID:	3596
Molecular Weight:	Approximately 13.28 kDa

PROPERTIES

AA Sequence	<p>M G P V P P S T A L R E L I E E L V N I T Q N Q K A P L C N G S M V W S I N L T</p> <p>A G M Y C A A L E S L I N V S G C S A I E K T Q R M L S G F C P H K V S A G Q F</p> <p>S S L H V R D T K I E V A Q F V K D L L L H L K K L F R E G R F N</p>
Biological Activity	Measure by its ability to induce TF-1 cells proliferation. The ED ₅₀ for this effect is <0.8 ng/mL. The specific activity of recombinant human IL-13 is approximately >1 x10 ⁶ IU/ mg
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 8.0.
Endotoxin Level	<0.1 EU per 1 µg of the protein by the LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
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	<p>Interleukin-13 (IL-13) is a cytokine which is secreted by T helper type 2 (Th2) cells, CD4 cells, natural killer T cell, mast cells, basophils, eosinophils and nuocytes. IL-13 is a central regulator in IgE synthesis, goblet cell hyperplasia, mucus hypersecretion, airway hyperresponsiveness, fibrosis and chitinase up-regulation. The circular dichroism spectrum confirms that interleukin-13 belongs to the alpha-helical family of cytokines. IL-13 synergizes with IL2 in regulating interferon-gamma synthesis. IL-13 exerts its biological effects through the IL4R chain and the IL13RA1 chain, to activate JAK1, TYK2 and STAT6. IL-13 affects the morphology, growth, and surface antigen expression and phenotype of monocytes and stimulates B-cell proliferation, and activation of eosinophils, basophils, and mast cells. In human macrophages and monocytes, hIL-13 has</p>
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been shown to inhibit HIV replication. Human IL-13 also inhibits proinflammatory cyto-kines induced by LPS exposure, indicating potential therapeutic applications as an anti-inflammatory agent^{[1][2][3][4][5][6]}.

Caution: Product has not been fully validated for medical applications. For research use only.

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