

IL-13 Protein, Human (112a.a, CHO)

Cat. No.:	HY-P73167
Synonyms:	IL13; Interleukin-13; IL-13; NC30
Species:	Human
Source:	CHO
Accession:	P35225 (G35-N146)
Gene ID:	3596
Molecular Weight:	Approximately 12.5 kDa

PROPERTIES

Biological Activity	Measured in a cell proliferation assay using TF1 human erythroleukemic cells and the ED ₅₀ is typically 0.5-3 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by 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

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 neutrophils. 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 been shown to inhibit HIV replication. Human IL-13 also inhibits proinflammatory cytokines 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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