

IL-13 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	IL-13;ALRH;interleukin 13;P600
Protein Construction:	A DNA sequence encoding the mature form of human IL13 (AAK53823.1) (Gly 21-Asn 132) was fused with the Fc region of human IgG1 at the N-terminus. Predicted N terminal: Glu
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P35225
Molecular Weight:	39 kDa (predicted); 50-55 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured by its binding ability in a functional ELISA. Immobilized recombinant human IL13RA2 at 8 µg/ml (100 µl/well) can bind IL13 with a linear range of 0.25-8.0 ng/ml.
Purity:	> 98% as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:	Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>
Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Interleukin 13 (IL-13) is a single-chain glycosylated polypeptide, which belongs to the IL-13/IL-4 family. IL-13 protein is secreted by many cell types, but especially by T helper type 2 (Th2) cells. IL-13 exerts its effects through a multi-subunit receptor comprising the alpha chain of the IL-4 receptor (IL-4R α) and at least one of two known IL-13-specific binding chains (IL-13 R α 1 and IL-13 R α 2). As a cytokine, IL-13 protein is critical in regulating inflammatory, immune responses, and diseases. Also, it inhibits the production of pro-inflammatory cytokines and

chemokines, and thus down-regulates macrophage activity. IL-13 protein and antibody are more importantly implicated as a central mediator of immunoregulatory processes in various cell types. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

Reference

Junttila IS, et al. (2008) Tuning sensitivity to IL-4 and IL-13: differential expression of IL-4Ralpha, IL-13Ralpha1, and gamma c regulates relative cytokine sensitivity. J Exp Med. 205(11): 2595-608.

Shimamura T, et al. (2008) Novel role of IL-13 in fibrosis induced by nonalcoholic steatohepatitis and its amelioration by IL-13R-directed cytotoxin in a rat model. J Immunol. 181(7): 4656-65.

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