

## Recombinant Mouse IL-13, Tag Free

### Information

Accession #	P20109
Alternate Names	ALRHMGC116789; BHR1interleukin-13; IL13; IL-13; IL-13MGC116788; interleukin 13
Source	Human embryonic kidney cell, HEK293-derived mouse IL-13 protein
Protein sequence	Ser26-Phe131
M.Wt	11.5 kDa
Appearance	Solution protein
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 3 years from date of receipt, -20 to -70°C as supplied.
Concentration	0.2 mg/mL
Formulation	Dissolved in sterile PBS buffer.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
Biological Activity	The EC50 for this effect is 0.5-1.5 ng/mL. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells.
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

### Quality Control

Purity	> 95%, determined by SDS-PAGE.
Endotoxin	<0.010 EU per 1 ug of the protein by the LAL method.

### Description

Interleukin-13 (IL-13), is a 17 kDa immunoregulatory cytokine that plays a key role in the pathogenesis of allergic asthma and atopy. It is secreted by Th1 and Th2 CD4+ T cells, NK cells, visceral smooth muscle cells, eosinophils, mast cells, and basophils [1-3]. IL-13 circulates as a monomer with two internal disulfide bonds that contribute to a bundled four alpha-helix configuration [4,5]. Mature mouse IL-13 shares 57%, 75%, and 58% amino acid sequence identity with human, rat, and rhesus IL-13, respectively. Despite the low homology, it exhibits cross-species activity between human, mouse, and rat [6,7]. IL-13 has diverse activities on numerous cell types [8]. On macrophages, IL-13 suppresses the production of proinflammatory cytokines and other cytotoxic substances. On B cells, IL-13 induces immunoglobulin class switching to IgE, upregulates the expression of MHC class II, CD71, CD72, and CD23, and

costimulates proliferation. IL-13 upregulates IL-6 while downregulating IL-1 and TNF-alpha production by fibroblasts and endothelial cells.

## Reference

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**[www.apexbt.com](http://www.apexbt.com)**

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: [info@apexbt.com](mailto:info@apexbt.com)