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HB220402

Recombinant Rhesus Macaque Interleukin-13

(Rhesus Macaque IL-13)

Product Information

Product Name	Cat#	Size
Recombinant Rhesus Macaque Interleukin-13 (Rhesus Macaque IL-13)	90137ES10	10 μg
	90137ES60	100 μg
	90137ES76	500 μg

Product Description

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. IL-13 circulates as a monomer with two internal disulfide bonds that contribute to a bundled four alpha -helix configuration. Mature rhesus IL-13 shares 94%, 58%, and 60% amino acid sequence identity with human, mouse, and rat IL-13, respectively. Despite the low homology, it exhibits cross-species activity between human, mouse, and rat. IL-13 has diverse activities on numerous cell types. 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. IL-13 binds with low affinity to IL-13 R alpha 1, triggering IL-13 R alpha 1 association with IL-4 R alpha. This high affinity receptor complex also functions as the type 2 IL-4 receptor complex. Additionally, IL-13 binds with high affinity to IL-13 R alpha 2 which is expressed intracellularly, on the cell surface, and as a soluble molecule.

Product Properties

Synonyms	BHR1interleukin-13, IL13, interleukin 13, MGC116786, NC30, P600
Accession	Q864V6
GeneID	574325
Source	E.coli-derived Rhesus Macaque IL-13, Ser19-Asn132.
Molecular Weight	Approximately 12.6 kDa.
AA Sequence	SPSPVPRSTA LKELIEELVN ITQNQKAPLC NGSMVWSINL TAGVYCAALE SLINVSGCSA IEKTQRMLNG FCPHKVSAGQ FSSLRVRDTK IEVAQFVKDL LVHLKKLFRE GRFN
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 98% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED_{50} as determined by a cell proliferation assay using human TF-1 cells is less than 5 ng/mL, corresponding to a specific activity of > 2.0×10^5 IU/mg. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1μg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4, 3% trehalose.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 20 mM HCl to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20℃. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20℃ to -80℃ for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!