Datasheet

Cat. No. P1127

Recombinant Human IL-13

Information

Gene ID	3596
Accession #	P35225
Alternate Names	BHR1interleukin-13, IL13, interleukin 13, MGC116786, NC30, P600
Source	*Escherichia coli.*
M.Wt	Approximately 12.5 kDa, a single non-glycosylated polypeptide chain containing 112 amino acids.
AA Sequence	GPVPPSTALR ELIEELVNIT QNQKAPLCNG SMVWSINLTA GMYCAALESL INVSGCSAIE KTQRMLSGFC PHKVSAGQFS SLHVRDTKIE VAQFVKDLLL HLKKLFREGR FN
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70°C as supplied. - 1 month, 2 to 8°C under sterile conditions after reconstitution. - 3 months, -20 to -70°C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4 with 5% 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°C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using human TF-1 cells is less than 1 ng/ml, corresponding to a specific activity of > 1.0×10^6 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 μg	100 μg	500 μg
Recombinant Human IL-13	10 μg	100 μg	500 μg

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- 1 month, 2 to 8°C under sterile conditions after reconstitution.
- 3 months, -20 to -70°C under sterile conditions after reconstitution.

Quality Control

Purity	>97% by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuIL-13 as determined by LAL method.

Description

Human Interleukin-13 (IL-13) is expressed by the IL13 gene located on the chromosome 5 and secreted by many cell types, especially T helper type 2 (Th2) cells. The high solution from of IL-13 reported to be a monomer with two internal disulfide bonds that contribute to a bundled four α-helix configuration. Targeted deletion of IL-13 in mice resulted in impaired Th2 cell development and indicated an important role for IL-13 in the expulsion of gastrointestinal parasites. IL-13 exerts anti-inflammatory effects on monocytes and macrophages and it inhibits the expression of inflammatory cytokines such as IL-1beta, TNF-alpha, IL-6 and IL-8. IL-13 has also been shown to enhance B cell proliferation and to induce isotype switching resulting in increased production of IgE. Human, mouse and rat IL-3 share low homology, but have cross species activity.

Reference

1. Schmutz J, Martin J, Terry A, et al. 2004. Nature, 431: 268-74.

2. Wynn TA. 2003. Annu Rev Immunol, 21: 425-56.

3. Moy FJ, Diblasio E, Wilhelm J, et al. 2001. J Mol Biol, 310: 219-30.

4. Lakkis FG, Cruet EN, Nassar GM, et al. 1997. Biochem Biophys Res Commun, 235: 529-32.

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