

Revision 1

Store at -20C
#79627

Human IL-13 Recombinant Protein

10 µg

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MW (kDa):
12.6**UniProt ID:**
P35225**Entrez-Gene Id:**
3596

Background

Interleukin-13 (IL-13) is produced by T cells and is important in the TH2 response. IL-13 targets include B cells, eosinophils, fibroblasts, mast cells, and macrophages (1-3). IL-13 binds specifically to IL-13R α 1 that complexes with IL-4R α to form the Type II IL-4R. Jak1 and Tyk2 are activated and signal through Stat3 and Stat6 (6). IL-13R α 2 is a different gene product, lacks the intracellular domain, does not complex with IL-4R α , and does not signal (1,6,7). The extracellular domain of IL-13R α 2 is often elevated in diseased states. IL-13 plays key roles in airway hyperresponsiveness (AHR) of allergic asthma (1,4,5) and modulates resistance to parasitic organisms (1).

Endotoxin

Endotoxin levels are less than or equal to 1 EU / 1 µg hIL-13.

Purity

A greater than or equal to 95% purity was determined by SDS-PAGE.

Source / Purification

Recombinant human IL-13 was expressed in *E. coli* and is supplied in a lyophilized form.

Bioactivity

The bioactivity of recombinant hIL-13 was determined in a TF-1 cell proliferation assay. The ED₅₀ of each lot is less than or equal to 5 ng/mL.

Storage

Human IL-13 Recombinant Protein is supplied as lyophilized material that is very stable at -20°C. It is recommended to reconstitute with sterile 20 mM HCl at a concentration of 0.1 mg/mL which can be further diluted in aqueous solutions as needed. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long-term storage.

Background References

- Wynn, T.A. (2003) *Annu Rev Immunol* 21, 425-56.
- Katz, Y et al. (1995) *Clin Exp Immunol* 101, 150-6.
- McKenzie, A.N. et al. (1993) *Proc Natl Acad Sci U S A* 90, 3735-9.
- Wills-Karp, M. et al. (1998) *Science* 282, 2258-61.
- Nakajima, H. and Takatsu, K. (2007) *Int Arch Allergy Immunol* 142, 265-73.
- Wills-Karp, M. and Finkelman, F.D. (2008) *Sci Signal* 1, pe55.
- Mentink-Kane, M.M. et al. (2004) *Proc Natl Acad Sci U S A* 101, 586-90.

APPLICATIONS KEY

CROSS-REACTIVITY KEY H: human M: mouse R: rat Hm: hamster Mk: monkey
Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish
B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr:

hspc: Baby rabbit All: all species expected

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