Revision 4

#8905 Store at -20C

Human Interleukin-13 (hIL-13)

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MW (kDa):	UniProt ID:	Entrez-Gene Id:
12	#P35225	3596

Background

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-13Rα1 that complexes with IL-4Rα to form the Type II IL-4R. Jak1 and Tyk2 are activated and signal through Stat3 and Stat6 (6). IL-13Rα2 is a different gene product, lacks the intracellular domain, does not complex with IL-4Rα and does not signal (1,6,7). The extracellular domain of IL-13Rα2 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

Less than 0.01 ng endotoxin/1µg hIL-13.

Purity

>98% as determined by SDS-PAGE of 6 µg reduced (+) and non-reduced (-) recombinant hIL-13. All lots are greater than 98% pure.

Source / Purification

Recombinant human IL-13 (hIL-13) Gly21-Asn132 (Accession #AAK53823) was produced in *E. coli* at Cell Signaling Technology.

Bioactivity

The bioactivity of recombinant hIL-13 was determined in a TF-1 cell proliferation assay. The ED_{50} of each lot is between 0.6-1.2 ng/ml.

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Background References

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

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:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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