

Technical Data Sheet

Recombinant Mouse IL-13

Product Information

Material Number:	554599
Size:	5 µg
Concentration:	100 µg/ml
Storage Buffer:	Frozen aqueous buffered solution containing BSA.

Description

Interleukin-13 (IL-13) is a cytokine produced by activated T lymphocytes which regulates the function of mouse macrophages and shares some biological functions with IL-4. Administration of mouse IL-13 to cultured mouse macrophages induces morphological changes (flattening, and development of processes), leads to increases in class II MHC antigen expression, and inhibits the synthesis of several proinflammatory cytokines (including IL-1β, IL-6, TNF, and IL-12). In contrast to human IL-13, mouse IL-13 does not appear to have activity for mouse B cells. Recombinant mouse IL-13 (mIL-13) has multiple glycosylated forms ranging in molecular weights from 11.3 to 15 kD, as detected by SDS-PAGE analysis.

Formulation and Purity:

Recombinant mouse IL-13 is supplied as a frozen aqueous buffered solution containing 1.0 mg/ml biotechnology grade, low endotoxin bovine serum albumin, with no preservatives. Recombinant mouse IL-13 is ≥95% pure, as determined by SDS-PAGE, and an absorbance assay based on the Beers- Lambert law. The endotoxin level is ≤0.1 ng per µg of mouse IL-13, as measured in a chromogenic LAL assay.

Preparation and Storage

Store product at -80°C prior to use or for long term storage of stock solutions.

Avoid multiple freeze-thaws of product.

Rapidly thaw and quick-spin product prior to use.

Upon initial thawing the product should be aliquoted into polypropylene microtubes and frozen at -80°C for future use. Alternatively, prepare stock solutions diluted in sterile neutral buffer containing not less than 0.5 - 10 mg/ml carrier protein such as human or bovine serum albumin, aliquoted and stored at -80°C. For in vitro biological assay use, we recommend carrier-protein concentrations of 0.5 - 1 mg/ml. For use as an ELISA standard we recommend carrier-protein concentrations of 5 - 10 mg/ml. Failure to add carrier protein or store at indicated temperatures may result in a loss of activity. The product should not be diluted to less than 5 µg/ml for long term storage. Note: Carrier proteins should be pre-screened for possible effects in an appropriate experimental system. Carrier proteins may effect experimental results due to toxicity, high endotoxin levels or possible blocking activity.

Application Notes

Application

ELISA	Routinely Tested
Bioassay	Tested During Development

Recommended Assay Procedure:

Biological Activity

Activity Assay: Measured by proliferation using TF-1 indicator cells

Specific Activity Range: 0.6 - 5 x 10⁷ Units*/mg

ED50: 0.2 - 1.5 ng/ml ; **Observed dose response** relationship: 50 fold

*Unit is defined as the amount of material required to stimulate a half-maximal response at cytokine saturation.

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
4. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

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Doherty TM, Kastelein R, Menon S, Andrade S, Coffman RL. Modulation of murine macrophage function by IL-13. *J Immunol.* 1993; 151(12):7151-7160. (Biology)

Kitamura T, Tange T, Terasawa T, et al. Establishment and characterization of a unique human cell line that proliferates dependently on GM-CSF, IL-3, or erythropoietin. *J Cell Physiol.* 1989; 140(2):323-334. (Methodology)

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