

Mouse IL-13 research grade

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1. Description

Products Mouse IL-13, research grade.

Recombinant mouse interleukin 13.

Content in µg	Order no.
2	130-094-639
10	130-094-070

Biological activity

The ED_{50} is ≤ 4 ng/mL corresponding to an

activity of $\geq 2.5 \times 10^5$ U/mg.

▲ Note: The ED₅₀ is determined by dose-dependent stimulation of the proliferation of human TF-1 cells.

Primary structure

Single, non-glycosylated polypeptide chain (111 amino acid residues including an

N-terminal methionine).

Molecular mass 12.3 kDa.

12.5 KDa.

Source Produced in *E. coli*.

Product format Lyophilized from a filtered (0.2 μm) buffer

solution.

Stabilizer None.

Purity >95% as determined by SDS-PAGE analysis.

Endotoxin level Low endotoxin (<1.0 EU/μg cytokine) as

determined by Limulus Amebocyte Lysate

(LAL) assay.

Storage Lyophilized Mouse IL-13, research grade

should be stored at -20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at -20

°C or below. Avoid repeated freeze-thaw cycles.

Reconstitution It is recommended to reconstitute lyophilized

Mouse IL-13, research grade with deionized sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 20 μ L. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered

saline.

1.1 Background information

IL-13 is an immune regulatory cytokine produced primarily by activated TH2 cells as well as mast cells and NK cells. Signaling through the IL-13 receptor activates the JAK/STAT and IRS-1/IRS-2 pathways. IL-13 has anti-inflammatory effects on monocytes and macrophages and it inhibits the expression of inflammatory

cytokines such as IL-1 β , TNF- α , 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. Although IL-13 is involved in the pathogenesis of airway diseases such as asthma, it also plays a protective role for the mucosa, via induction of matrix metalloproteinases (MMPs) and other anti-inflammatory effects. In addition, IL-13 plays an important role in the expulsion of gastrointestinal parasites.

1.2 Applications

Mouse IL-13 can be used for a variety of applications including:

- Inhibition of monocyte and macrophage activation.
- B cell activation.

Optimal concentration for a specific application should be determined by a dose-response experiment.

Refer to www.miltenyibiotec.com for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www. miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

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