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Recombinant Mouse IL-13 Protein

Catalog No.: RP01596 Recombinant 2 Publications

Sequence Information

Species Gene ID Swiss Prot HEK293 cells 16163 P20109

Tags

C-His

Synonyms

Interleukin-13; IL-13; T-Cell Activation Protein P600: Il13: Il-13;IL13;Interleukin-13; IL-13; T-Cell Activation Protein P600; Il13; Il-13;IL13

Product Information

Source

Purification

HEK293 cells

> 95% by SDS-PAGE.

Endotoxin

<0.1EU/µg

Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact



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Background

Mouse interleukin 13 (mIL-13) is a pleiotropic cytokine produced by activated Th2 cells. IL-13 induces B cell proliferation and immunoglobin production. It contains a four helical bundle with two internal disulfide bonds. Mouse IL13 shares 58% sequence identity with human protein and exhibits cross-species activity. IL13 signals via receptor IL13R (type2, IL4R) and activates STAT-6. IL13 initially binds IL-13R α 1 with low affinity and triggers association of IL4R α , generating a high affinity heterodimeric receptor IL13R and eliciting downstream signals. IL13 also binds IL-13Rα2 with high affinity, which plays a role in a negative feedback system of IL13 signaling. IL13 is an important mediator of allergic inflammation and disease.

Basic Information

Description

Recombinant Mouse IL-13 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser26-Phe131) of mouse IL-13 (Accession #NP_032381.1) fused with and a 6×His tag at the C-terminus.

Bio-Activity

Measured in a cell proliferation assay using TF-1 Mouse erythroleukemic cells. The ED₅₀ for this effect is 5.4-21.4 ng/mL, corresponding to a specific activity of $4.68 \times 10^{4} \sim 1.85 \times 10^{5}$ units/mg.

Storage

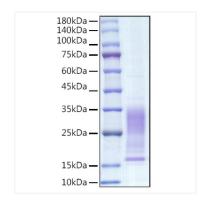
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

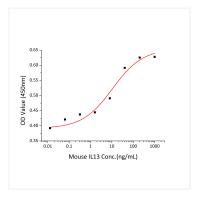
Avoid repeated freeze/thaw cycles.

^{*} For your safety and health, please wear a lab coat and disposable gloves when handling.

Validation Data



Recombinant Mouse IL-13 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Mouse IL-13 stimulates cell proliferation of the TF-1 Mouse erythroleukemic cells. The ED $_{50}$ for this effect is 5.4-21.4 ng/mL, corresponding to a specific activity of $4.68 \times 10^4 \sim 1.85 \times 10^5$ units/mg.