

RP01691

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Recombinant Mouse IL-12/IL-12A&IL-12B Protein

Catalog No.: RP01691

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	16159&1616	P43431
	0	P43432

Tags

C-His(IL-12a)&No tag(IL-12b)

Synonyms

p35; IL12a; IL-12a; IL-12p35&p40; IL-12b; IL12p40; IL-12p40;IL-12&IL12b;IL-12 p70
IL12A&IL12B

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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Interleukin 12 (IL-12) is a pleiotropic cytokine that plays an essential role in Th1-type immune response against cancer, a condition where cells in a particular part of the body grow and reproduce uncontrollably.

Basic Information

Description

Active Recombinant Mouse IL-12/IL-12A&IL-12B Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Arg23-Ala215 Met23-Ser335) of Mouse IL-12A&IL-12B (Accession #P43431P43432) fused with and a 6xHis tag at the C-terminus(IL-12).

Bio-Activity

1.Measured by its binding ability in a functional ELISA.Immobilized Mouse IL-12A&IL-12B (Catalog: RP01691) at 5 μg/mL (100 μL/well) can bind Human IL12RB1 with a linear range of 0.001-3.3 ng/mL.2.Measured in a cell proliferation assay using IL2-activated mouse splenocytes. The ED50 for this effect is 0.01- 0.03 ng/mL, corresponding to a specific activity of $3.3 \times 10^7 \sim 1 \times 10^8$ units/mg.3.Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED₅₀ for this effect is 7.3-29.2 ng/mL, corresponding to a specific activity of $3.4 \times 10^4 \sim 1.4 \times 10^5$ units/mg.

Storage

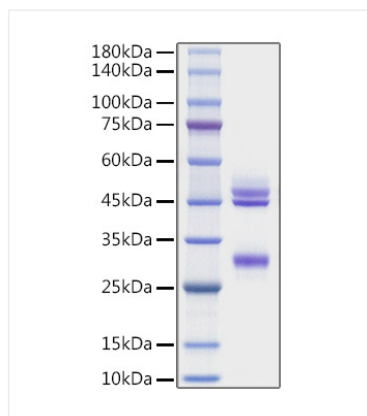
Store the lyophilized protein at -20°C to -80°C for 12 months.
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.
Avoid repeated freeze/thaw cycles.

Contact

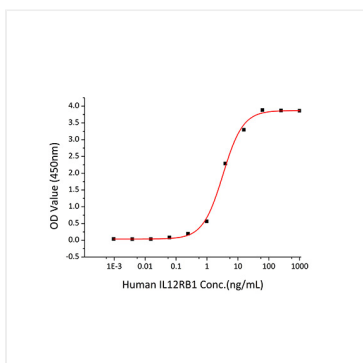


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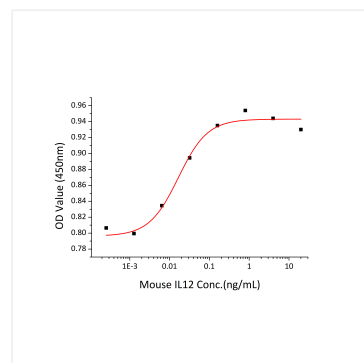
Validation Data



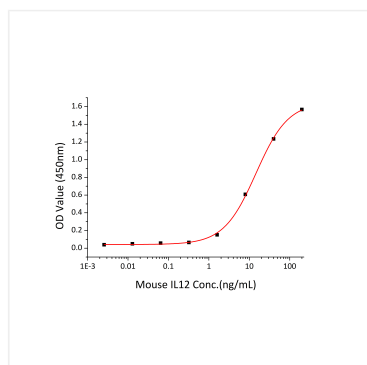
Recombinant Mouse IL-12A&IL-12B Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 25-30 kDa(IL-12A)&45-55 kDa(IL-12B) kDa.



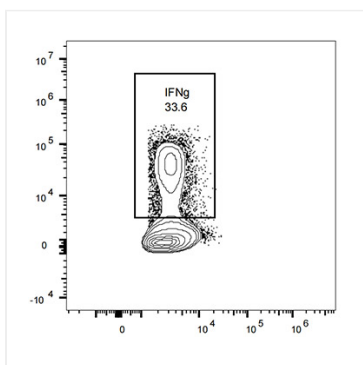
Immobilized Mouse IL-12A&IL-12B (Catalog: RP01691) at 5 µg/mL (100 µL/well) can bind Human IL12RB1 with a linear range of 0.001-3.3 ng/mL.



Recombinant Mouse IL-12A&IL-12B stimulates cell proliferation of the IL2-activated mouse splenocytes. The ED₅₀ for this effect is 0.01- 0.03 ng/mL, corresponding to a specific activity of $3.3 \times 10^7 \sim 1 \times 10^8$ units/mg.



Recombinant Mouse IL-12/IL-12A&IL-12B induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED₅₀ for this effect is 7.3-29.2 ng/mL, corresponding to a specific activity of $3.4 \times 10^4 \sim 1.4 \times 10^5$ units/mg.



Active Recombinant Mouse IL-12(Cat. RP01691)induces the mouse T cells differentiate into Th1 cells. Flow cytometry was used to detect the expression of IFN-γ. Result showed that Th1 cells were induced successfully.(Customer Feedback Data).