

RP01154

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Recombinant Human IL-12A Protein

Catalog No.: RP01154

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	3592	P29459

Tags

C-Flag

Synonyms

P35; CLMF; NFSK; NKSF1; IL-12A; IL12A

Product Information

Source	Purification
HEK293 cells	> 82% by SDS-PAGE.

Endotoxin

Please contact us for more information.

Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

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 subunit alpha (IL12A/IL-12p35) is also known as Cytotoxic lymphocyte maturation factor 35 kDa subunit, cytotoxic lymphocyte maturation factor 1, p35, NK cell stimulatory factor chain 1, and interleukin-12 alpha chain. IL12A/IL-12p35 is a subunit of a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. The cytokine is a disulfide-linked heterodimer composed of the 35-kD subunit encoded by this gene, and a 40-kD subunit that is a member of the cytokine receptor family. This cytokine is required for the T-cell-independent induction of interferon (IFN)-gamma, and is important for the differentiation of both Th1 and Th2 cells. The responses of lymphocytes to this cytokine are mediated by the activator of transcription protein STAT4. Nitric oxide synthase 2A (NOS2A/NOS2) is found to be required for the signaling process of this cytokine in innate immunity.

Basic Information

Description

Recombinant Human IL-12A Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Arg23-Ser219) of human IL12A/NKSF1 (Accession #NP_000873.2) fused with a Flag tag at the C-terminus.

Bio-Activity

Measured in a cell proliferation assay using anti-CD3 antibody activated Jurkat Human acute T lymphocyte leukemia cells. The ED₅₀ for this effect is typically 0.075-0.3 ng/mL.

Storage

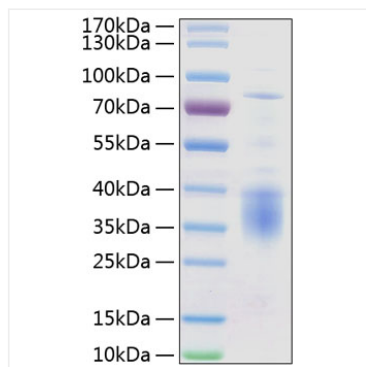
Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

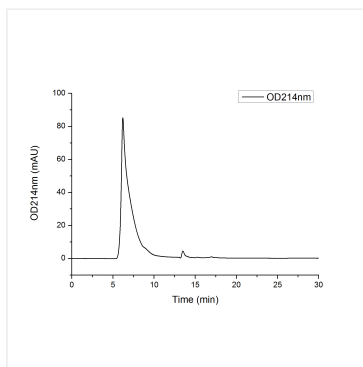


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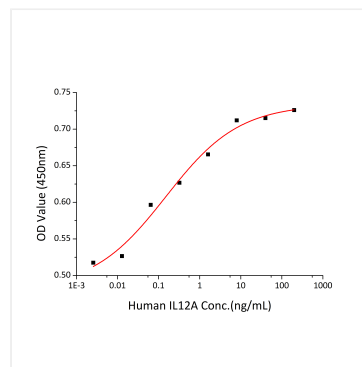
Validation Data



Recombinant Human IL-12A Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 35-40 kDa..



The purity of human IL12A/NKSF1 Protein (Cat.RP01154) was greater than 95% as determined by SEC-HPLC.



Recombinant Human IL12A promotes the proliferation of anti-CD3 antibody activated Jurkat Human acute T lymphocyte leukemia cells. The ED₅₀ for this effect is typically 0.075-0.3 ng/mL.