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

Catalog No.: RP01232

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Sequence Information

Species	Gene ID
Human	3592&3593

Swiss Prot	Tags
P29459&P29460	C-His(IL12B)&C-Flag(IL12A)

Synonyms

CLMF,IL12,p70,Interleukin-12, IL12A,P35,NKSF

Product Information

Source	Purification
HEK293 cells	≥ 95 % as determined by SDS-PAGE.

Calculated MW	Observed MW
25.54 kDa(IL-12A), 35.54 kDa (IL-12B)	37 kDa(IL-12A), 40-55 kDa(IL-12B)

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

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

Background

IL-12 is a cytokine that is secreted by activated phagocytes and dendritic cells and that induces interferon-γproduction by natural-killer and T lymphocytes. IL-12 is a 70 kDa heterodimer composed of a 35 kDa subunit (IL-12A p35) and a 40 kDa subunit (IL-12B p40). IL-12 is known as a T cell-stimulating factor, which can stimulate the growth and function of T cells. IL-12 plays an important role in the activities of natural killer cells and T lymphocytes. IL-12 also has anti-angiogenic activity, which means it can block the formation of new blood vessels. IL-12 has been shown to play a critical role in the pathogenesis of a variety of immune-related diseases.

Basic Information

Description

Active Recombinant Human IL-12A&IL-12B Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ile23-Ser328&Arg23-Ser219) of human IL-12 (Accession #NP_002178.2 /NP_000873.2) fused with a 6×His tag at the C-terminus(IL12B),Flag tag at the C-terminus(IL12A).

Activity

1.Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human IL-12 at 1 μg/mL (100 μL/well) can bind Recombinant Human IL12Rβ1 with a linear range of 30.6-122.4 ng/mL.
2.Measured in a cell proliferation assay using anti-CD3 antibody activated Human T lymphocyte leukemia cells (jurkat). The ED_{50} for this effect is typically 0.1-0.4 ng/mL, corresponding to a specific activity of 2.5×10^{6}-1.0×10^{7}units/mg.
3.Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED_{50} for this effect is 2-8 ng/mL, corresponding to a specific activity of 1.25×10^{5}~5×10^{5} units/mg.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20℃

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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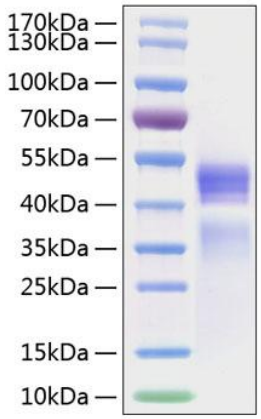
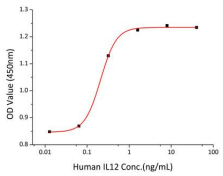
www.abclonal.com.cn

For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

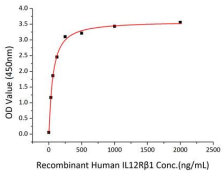
Validation Data



Recombinant Human IL-12/IL-12A&IL-12B Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human IL-12 promotes the proliferation of anti-CD3 antibody activated Human T lymphocyte leukemia cells (jurkat). The ED_{50} for this effect is typically 0.1-0.4 ng/mL, corresponding to a specific activity of 2.5×10^6-1.0×10^7units /mg.



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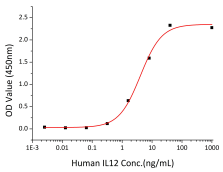

Recombinant Human IL-12/IL-12A&IL-12B induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED_{50} for this effect is 2-8 ng/mL, corresponding to a specific activity of 1.25×10^5~5×10^5 units/mg.