

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

Catalog No.: RP01232 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	3592&3593	P29459&P29460

### Tags

C-His(IL12B)&C-Flag(IL12A)

### Synonyms

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

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

### 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 stabilizer (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

### 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).

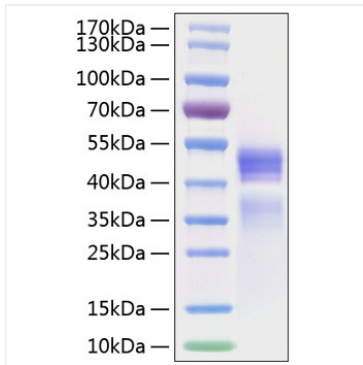
#### Bio-Activity

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<sub>50</sub> for this effect is typically 0.1-0.4 ng/mL, corresponding to a specific activity of 2.5×10<sup>5</sup>-1.0×10<sup>7</sup> units/mg. 3. Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED<sub>50</sub> for this effect is 2-8 ng/mL, corresponding to a specific activity of 1.25×10<sup>5</sup>-5×10<sup>5</sup> units/mg.

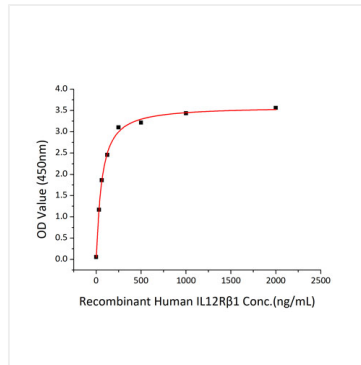
#### Storage

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.

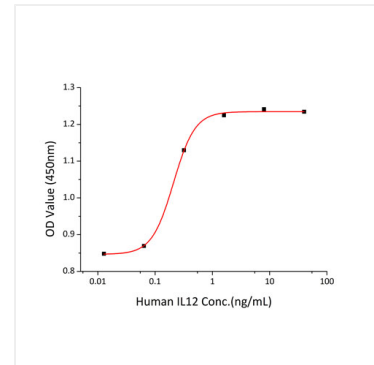
## Validation Data



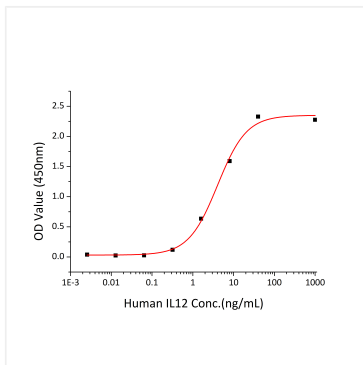
Active Recombinant Human IL-12A&IL-12B Protein was determined by SDS-PAGE with Coomassie Blue, showing bands at 37 kDa and 40-55 kDa.



Immobilized Recombinant Human IL-12 at 1µg/mL (100 µL/well) can bind Recombinant Human IL12Rβ1 with a linear range of 30.6-122.4 ng/mL.



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



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