

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

Catalog No.: RP01232 Recombinant

# **Sequence Information**

 Species
 Gene ID
 Swiss Prot

 Human
 3592&3593
 P29459&P29

 460
 460

**Tags** 

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), 37 kDa(IL-12A), 35.54 kDa(IL-12B) 40-55 kDa(IL-12B)

#### **Endotoxin**

 $< 0.1 \; \text{EU/}\mu\text{g}$  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.

#### Contact

## **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  $6\times$ 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 IL12R $\beta$ 1 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  $2.5\times10^6$ -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<sub>50</sub> for this effect is 2-8 ng/mL, corresponding to a specific activity of  $1.25\times10^5\sim5\times10^5$  units/mg.

# **Shipping**

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

## Storage

Store at  $-20^{\circ}$ C. Store the lyophilized protein at  $-20^{\circ}$ C to  $-80^{\circ}$ C up to 1 year from the date of receipt.

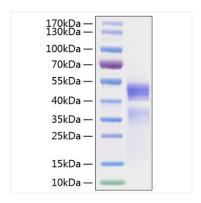
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

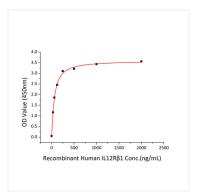
## Operational Notes

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

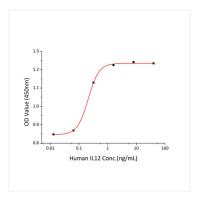
# **Validation Data**



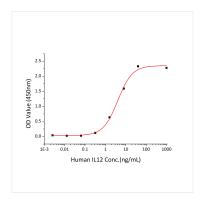
Recombinant Human IL-12/IL-12A&IL-12B Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Immobilized Recombinant Human IL-12 at 1 $\mu$ g/mL (100  $\mu$ L/well) can bind Recombinant Human IL12R $\beta$ 1 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  $ED_{50}$  for this effect is typically 0.1-0.4 ng/mL, corresponding to a specific activity of  $2.5\times10^6$ - $1.0\times10^7$ units/mg.



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  $1.25\times10^5\sim5\times10^5$  units/mg.