

# Human IL12A & IL12B (IL12A & IL12B Heterodimer) recombinant protein



Catalog Number: 503399

## General Information

### Gene Name Synonym

Cytotoxic lymphocyte maturation factor 35 kDa subunit; IL-12 subunit p35; NK cell stimulatory factor chain 1

### Protein Construction

A DNA sequence encoding the p35 subunit of human IL-12, termed as IL12A (NP\_000873.2) (Met 1-Ser 219) was fused with a polyhistidine tag at the C-terminus, constructed the plasmid 1 ; A DNA sequence encoding the p40 subunit of human IL-12, termed as IL12B (NP\_002178.2) (Met 1-Ser 328) was fused with a polyhistidine tag at the C-terminus, constructed the plasmid 2. The two plasmids were co-expressed and the heterodimer was purified.

### Organism

Human

### Expression Host

Human Cells

## QC Testing

### Activity

1. Measured by its ability to bind biotinylated recombinant human IL12RB1 in a functional ELISA.
2. Measured in a cell proliferation assay using Anti-CD28 and Anti-CD3-stimulated PBMC. The ED<sub>50</sub> for this effect is typically 0.1-0.6 ng/mL.

### Purity

> 95 % as determined by SDS-PAGE

### Endotoxin

< 1.0 EU per µg of the protein as determined by the LAL method

## Stability

Samples are stable for up to twelve months from date of receipt at -70°C

### Predicted N terminal

Arg 23 & Ile 23

### Molecular Mass

The recombinant IL12 heterodimer of human IL12A/IL12B comprises 525 (208 + 317) amino acids and has a calculated molecular mass of 60.2 (24 + 36.2) kDa. The apparent molecular mass of rh IL12 heterodimer is approximately 40 & 43 kDa respectively in SDS-PAGE under reducing conditions.

### Formulation

- Lyophilized from sterile PBS, pH 7.4
1. 5 % trehalose and mannitol are added as protectants before lyophilization.
  2. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage

Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

### Reconstitution

Adding sterile water, prepare a stock solution of 0.25 mg/ml. Concentration is measured by UV-Vis.

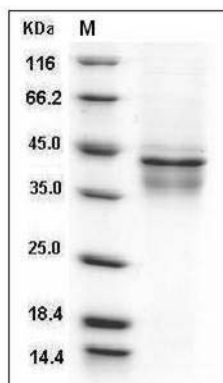
### SDS-PAGE

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Human IL-12 (IL12A & IL12B Heterodimer)  
Protein SDS-PAGE