

# Human IL23 (IL23A & IL12B Heterodimer) recombinant protein



Catalog Number: 504611

## General Information

### Protein Construction

A DNA sequence encoding the IL23A (Q9NPF7) (Met 1-Pro 189) was fused with a polyhistidine tag at the C-terminus, constructed the plasmid 1; A DNA sequence encoding the p40 subunit of human IL12, 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 IL23 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 by its binding ability in a functional ELISA. Immobilized human IL23A-His+IL12B-His at 10 µg/ml (100 µl/well) can bind human IL23R-Fc (Cat:504738). The EC<sub>50</sub> of human IL23R-Fc (Cat:504738) is 0.28-0.66 µg/ml.
3. Measured by its binding ability in a functional ELISA. Immobilized human IL23A-His+IL12B-His at 10 µg/ml (100 µl/well) can bind Cynomolgus IL23R-Fc (Cat:502630). The EC<sub>50</sub> of Cynomolgus IL23R-Fc (Cat:502630) is 0.14-0.35 µg/ml.
4. Measured by its ability to induce IL17 secretion by mouse splenocytes. The ED<sub>50</sub> for this effect is 0.5-2.5ng/mL.

### Purity

> 90 % 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 20 & Ile 23

### Molecular Mass

The recombinant IL23 heterodimer of human IL23A/IL12B comprises 498 (181 + 317) amino acids and has a calculated molecular mass of 56.3 (20.1 + 36.2) kDa. The apparent molecular mass of rhIL23 heterodimer is approximately 22 & 45 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.

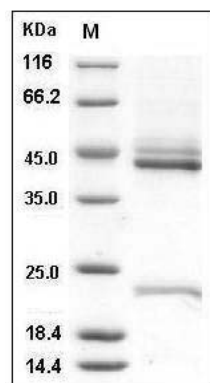
### SDS-PAGE

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Protein SDS-PAGE