



## Synonym

IL-23 alpha & IL-12 beta

## Source

Human IL-23A&IL-12B Heterodimer Protein, premium grade(ILB-H5219) is expressed from human 293 cells (HEK293). It contains AA Ile 23 - Ser 328 (IL-12B) & Arg 20 - Pro 189 (IL-23A) (Accession # [P29460-1](#) (IL-12B) & [Q9NPF7-1](#) (IL-23A)).

Predicted N-terminus: Ile 23

*Human IL-23A&IL-12B Heterodimer Protein, premium grade (ILB-H5219), designed for preclinical stage, has the same activity and performance with GMP Human IL-23A&IL-12B Heterodimer Protein, which enables a seamless transition from preclinical development to clinical phases. Premium Grade product offer a cost efficient alternative of GMP Grade products for the early development phase when safety of raw materials is not top priority. By using Premium Grade products in early development phase, you can transition easily into clinical and commercial phase without need to revalidate the raw materials and modify manufacturing process.*

## Molecular Characterization

This protein carries no "tag".

The protein has a calculated MW of 55.0 kDa. The protein migrates as 58 kDa±3 kDa under reducing (R) condition, and 58 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 0.1 EU per µg by the LAL method.

## Sterility

Negative

## Mycoplasma

Negative.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

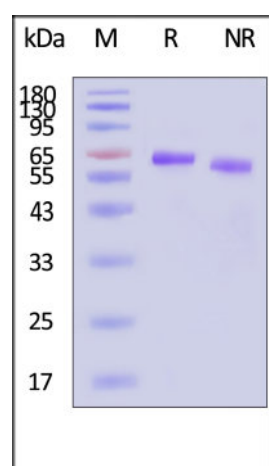
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

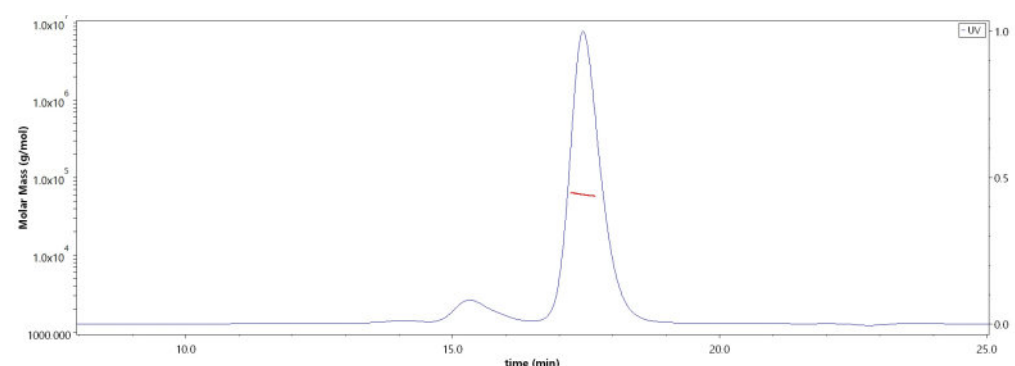
## SDS-PAGE



Human IL-23A&IL-12B Heterodimer Protein, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-Bioactivity CELL BASE

## SEC-MALS



The purity of Human IL-23A&IL-12B Heterodimer Protein, premium grade (Cat. No. ILB-H5219) is more than 85% and the molecular weight of this protein is around 50-70 kDa verified by SEC-MALS.

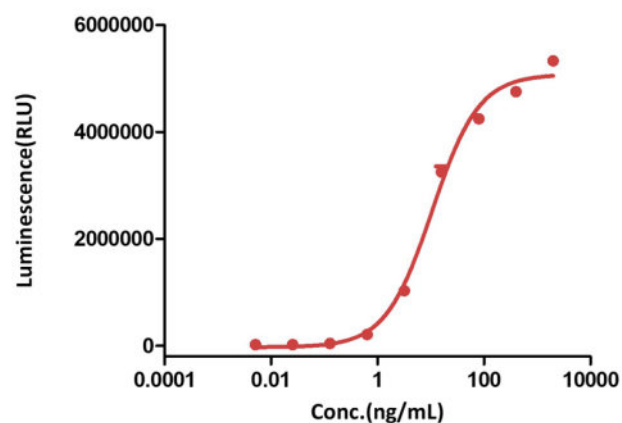
[Report](#)

Discounts, Gifts,  
and more!





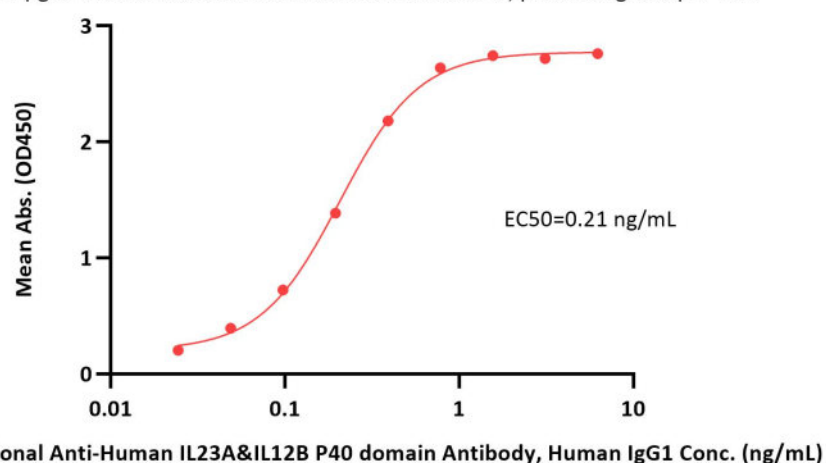
Human IL-23 A & IL-12 B Heterodimer Protein, premium grade stimulates Human IL-23 R/IL-12 R beta 1(Luc) HEK293 Reporter Cell



Human IL-23A&IL-12B Heterodimer Protein, premium grade (Cat. No. ILB-H5219) stimulates Human IL-23 R/IL-12 R beta 1 (Luc) HEK293 Reporter Cell (Cat. No. CHEK-ATF166). The EC50 value of this effect is 10.65 ng/mL (Routinely tested).

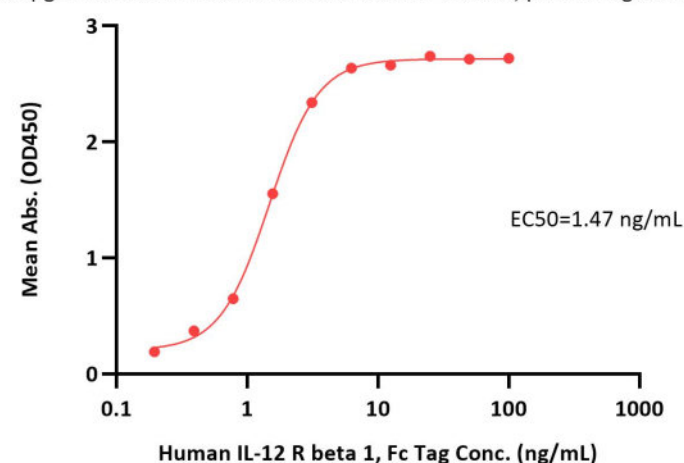
**Bioactivity-ELISA**

Human IL-23A&IL-12B Heterodimer Protein, premium grade ELISA  
0.1 µg of Human IL-23A&IL-12B Heterodimer Protein, premium grade per well



Immobilized Human IL-23A&IL-12B Heterodimer Protein, premium grade (Cat. No. ILB-H5219) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-Human IL23A&IL12B P40 domain Antibody, Human IgG1 with a linear range of 0.02-1 ng/mL (QC tested).

Human IL-23A&IL-12B Heterodimer Protein, premium grade ELISA  
0.5 µg of Human IL-23A&IL-12B Heterodimer Protein, premium grade per well



Immobilized Human IL-23A&IL-12B Heterodimer Protein, premium grade (Cat. No. ILB-H5219) at 5 µg/mL (100 µL/well) can bind Human IL-12 R beta 1, Fc Tag (Cat. No. ILB-H5255) with a linear range of 0.2-3 ng/mL (Routinely tested).

**Background**

Interleukin-23 subunit alpha (IL-23 alpha) can associate with IL12B to form the IL-23 interleukin, a heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 may constitute with IL-17 an acute response to infection in peripheral tissues. IL-23 binds to a heterodimeric receptor complex composed of IL12RB1 and IL23R, activates the Jak-Stat signaling cascade, stimulates memory rather than naive T-cells and promotes production of proinflammatory cytokines. IL-23 induces autoimmune inflammation and thus may be responsible for autoimmune inflammatory diseases and may be important for tumorigenesis.

**Clinical and Translational Updates**

Discounts, Gifts, and more!

