# Cynomolgus IL-23 alpha&Mouse IL-12 beta Heterodimer Protein, His Tag&Tag Free (MALS verified)

Catalog # ILB-CM52W8



### **Synonym**

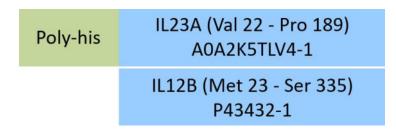
IL-23 alpha & IL-12 beta

#### Source

Cynomolgus IL-23A&Mouse IL-12B Heterodimer Protein, His Tag&Tag Free(ILB-CM52W8) is expressed from human 293 cells (HEK293). It contains AA Val 22 - Pro 189 (IL23A) & Met 23 - Ser 335 (IL12B) (Accession # A0A2K5TLV4-1 (IL23A) & P43432-1 (IL12B)).

Predicted N-terminus: His (IL23A) & Met 23 (IL12B)

#### **Molecular Characterization**



This protein carries polyhistidine tag at the N-terminus. The protein has a calculated MW of 20.3 kDa (IL23A) & 35.8 kDa (IL12B). The protein migrates as 20-23 kDa (IL23A) & 40-42 kDa and 43-46 kDa (IL12B) when calibrated against <a href="Star Ribbon Pre-stained Protein Marker">Star Ribbon Pre-stained Protein Marker</a> under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### **Endotoxin**

Less than 1.0 EU per µg by the LAL method.

### **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from  $0.22~\mu m$  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

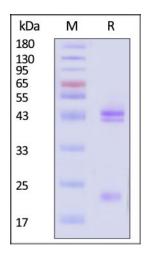
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

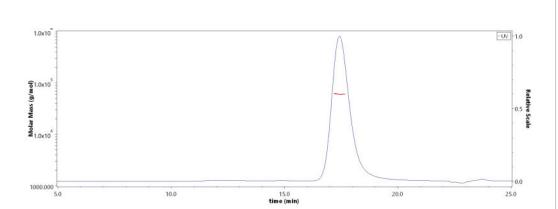
## SDS-PAGE



Cynomolgus IL-23A&Mouse IL-12B Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

## **Bioactivity-ELISA**

## SEC-MALS



The purity of Cynomolgus IL-23A&Mouse IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-CM52W8) is more than 85% and the molecular weight of this protein is around 55-70 kDa verified by SEC-MALS.

Report

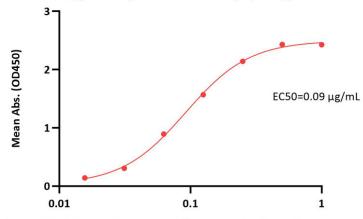


# Cynomolgus IL-23 alpha&Mouse IL-12 beta Heterodimer Protein, His Tag&Tag Free (MALS verified)





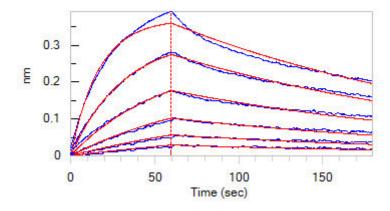




Cynomolgus IL-23A & Mouse IL-12B Heterodimer Protein, His Tag&Tag Free Conc. (µg/mL)

Immobilized Biotinylated Human IL-23 R, Fc,Avitag (Cat. No. ILR-H82F3) at 1  $\mu$ g/mL (100  $\mu$ L/well) on Streptavidin precoated (0.5  $\mu$ g/well) plate can bind Cynomolgus IL-23A & Mouse IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-CM52W8) with a linear range of 0.03-0.25  $\mu$ g/mL (QC tested).

#### **Bioactivity-BLI**



Loaded Human IL-23 R, Fc Tag (Cat. No. ILR-H5254) on Protein A Biosensor, can bind Cynomolgus IL-23A & Mouse IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-CM52W8) with an affinity constant of 9.4 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

### Background

Interleukin-23 subunit alpha (IL-23 alpha) can associates 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**

