

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

Poly-his	IL23A (Val 22 - Pro 189) A0A2K5TLV4-1
	IL12B (Met 23 - Ser 335) P43432-1

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 [Star Ribbon Pre-stained Protein Marker](#) 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 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

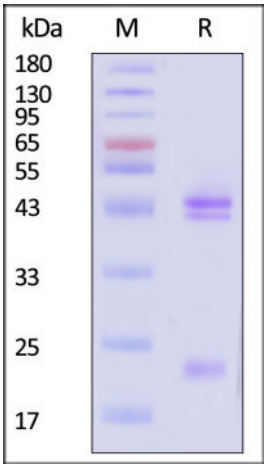
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

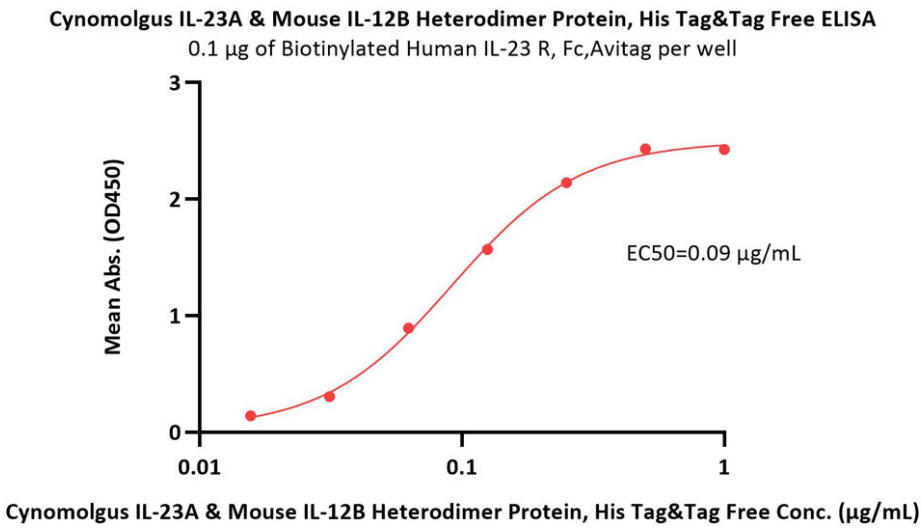
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



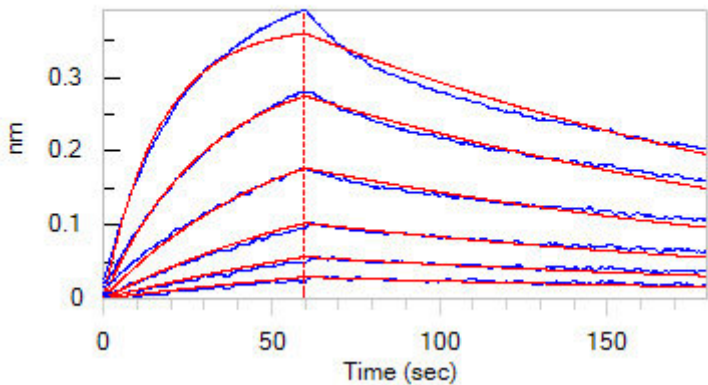
Cynomolgus IL-23A&Mouse IL-12B Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA



Immobilized Biotinylated Human IL-23 R, Fc,Avitag (Cat. No. ILR-H82F3) at 1 µg/mL (100 µL/well) on Streptavidin precoated (0.5 µg/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 µg/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

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.