Mouse IL-23 alpha&IL-12 beta Heterodimer Protein, His Tag&Tag Free

Catalog # ILB-M52W7

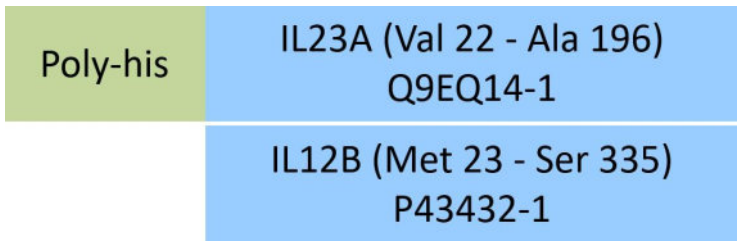
Synonym

IL-23 alpha & IL-12 beta

Source

Mouse IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free(ILB-M52W7) is expressed from human 293 cells (HEK293). It contains AA Val 22 - Ala 196 (IL23A) & Met 23 - Ser 335 (IL12B) (Accession # Q9EQ14-1 (IL23A) & P43432-1 (IL12B)).
Predicted N-terminus: His (IL23A) & Met 23 (IL12B)

Molecular Characterization



Mouse IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free, produced by co-expression of IL-23A and IL-12B, has a calculated MW of 20.5 kDa (IL-23A) and 35.8 kDa (IL-12B). Subunit IL-23A is fused with a polyhistidine tag at the N-terminus and subunit IL-12B contains no tag. The reducing (R) protein migrates as 20 kDa (IL-23A) and 45 kDa (IL-12B) respectively 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

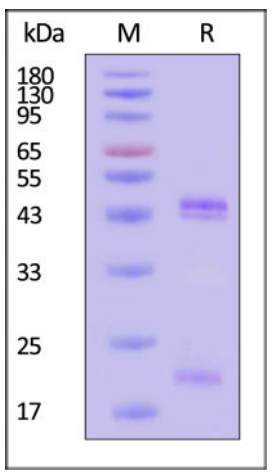
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

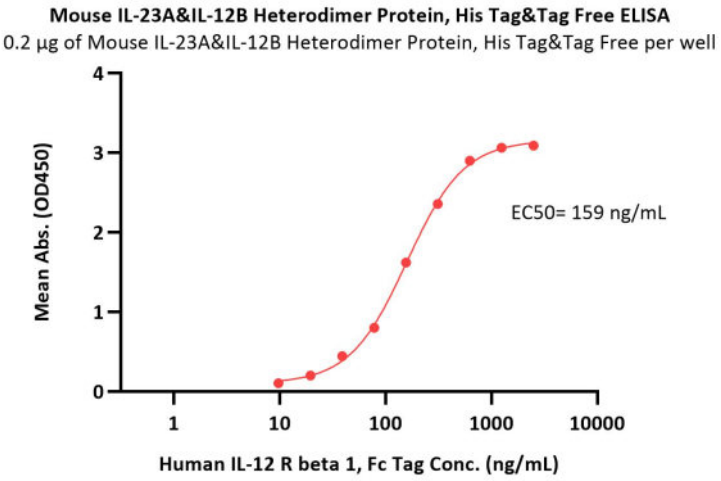
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

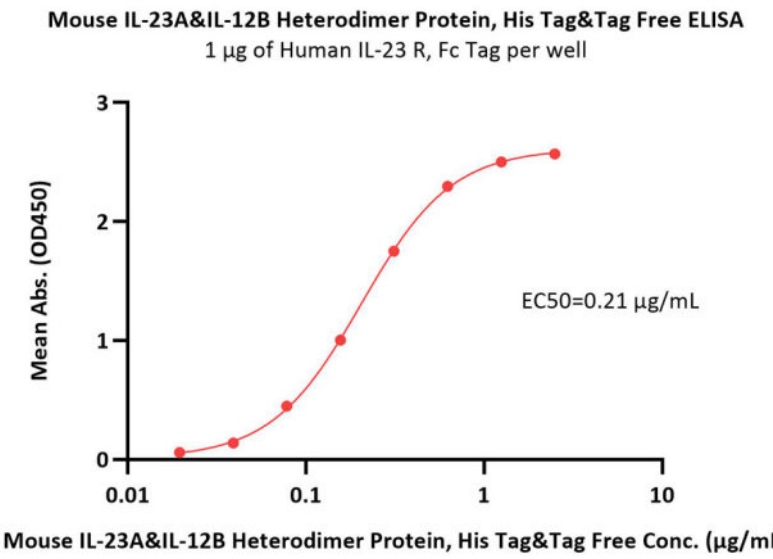


Mouse IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA

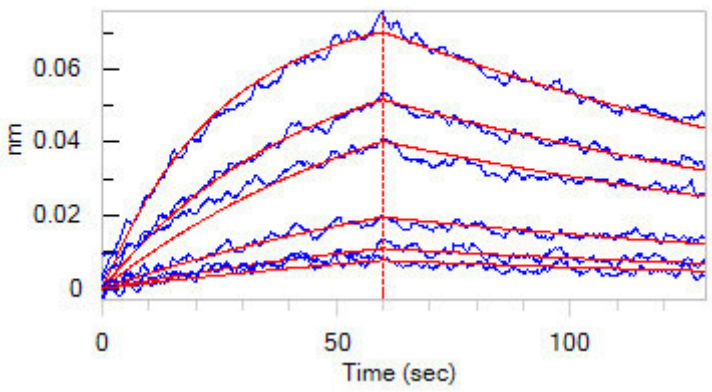


Immobilized Mouse IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-M52W7) at 2 μg/mL (100 μL/well) can bind Human IL-12 R beta 1, Fc Tag (Cat. No. ILB-H5255) with a linear range of 10-312 ng/mL (QC tested).

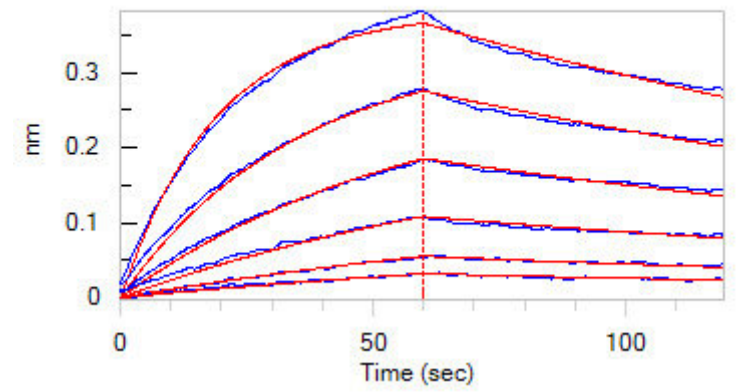


Immobilized Human IL-23 R, Fc Tag (Cat. No. ILR-H5254) at 10 μg/mL (100 μL/well) can bind Mouse IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-M52W7) with a linear range of 0.039-0.313 μg/mL (Routinely tested).

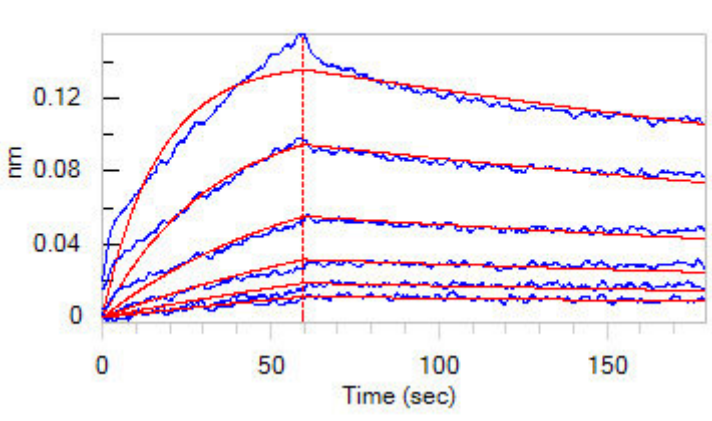
Bioactivity-BLI



Loaded Mouse IL-23R, Fc Tag (Cat. No. ILR-M5251) on Protein A Biosensor, can bind Mouse IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-M52W7) with an affinity constant of 20.6 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

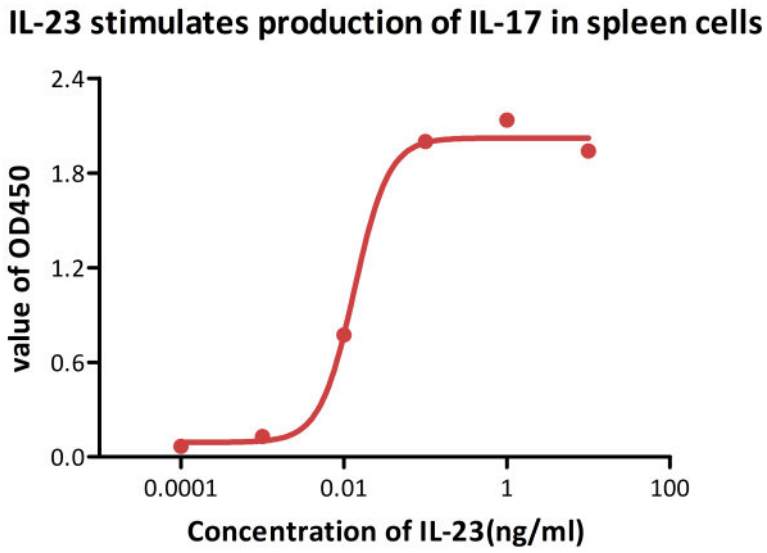


Loaded Human IL-23 R, Fc Tag (Cat. No. ILR-H5254) on Protein A Biosensor, can bind Mouse IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-M52W7) with an affinity constant of 11.8 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Human IL-12 R beta 1, Fc Tag (Cat. No. ILB-H5255) on Protein A Biosensor, can bind Mouse IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-M52W7) with an affinity constant of 3.6 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Bioactivity-Bioactivity CELL BASE



Mouse IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-M52W7) stimulates secretion of IL-17 by Mouse spleen cells. The ED50 for this effect is 0.008-0.0134 ng/mL (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