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

Catalog # ILB-H52W5AI2

Application

Human IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free AIDD-Ready protein is designed for direct use in SPR assays. It is supplied in a sugar-free, glycerol-free formulation to eliminate refractive index interference in SPR. No desalting or buffer exchange is required before use, simplifying the SPR workflow. Each tube features a unique barcode and bottom code for precise sample identification, supporting automated, high-throughput workflows and accelerating the transition from AI prediction to wet-lab validation.

Features and Advantages

- **Directly compatible with SPR:** No desalting or buffer exchange required; supplied as a liquid to reduce sample preparation and improve experimental efficiency.
- **High batch-to-batch consistency:** Each lot is released using SPR QC to ensure experimental reproducibility.
- **Validated with representative drugs:** SPR binding activity is validated using representative drug antibodies to ensure suitability for drug screening and evaluation.
- **Unique Tube Identification:** Each tube features a unique barcode and bottom code, supporting automated and high-throughput workflows. To request the product manifest, please contact our Technical Support team or click the button below.

Synonyms

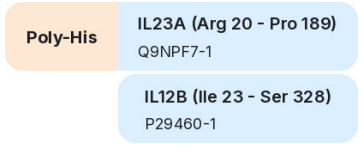
IL-23 alpha & IL-12 beta

Source

Human IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (ILB-H52W5AI2) is expressed from human 293 cells (HEK293). It contains AA Arg 20 - Pro 189 (IL23A) & Ile 23 - Ser 328 (IL12B) (Accession # Q9NPF7-1 (IL23A) & P29460-1 (IL12B)).

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

Molecular Characterization



The protein has a calculated MW of 19.5 kDa (IL23A) & 34.7 kDa (IL12B). The protein migrates as 19-20 kDa, 37-39 kDa and 41-42 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Purity

>90% as determined by SDS-PAGE.

Formulation

Formulated in a proprietary trehalose-free buffer, supplied ready-to-use for SPR/BLI analysis - no buffer exchange required.

For detailed formulation, please refer to the batch-specific COA.

Shipping and Storage

This product is supplied and shipped on dry ice.

Please avoid repeated freeze-thaw cycles.

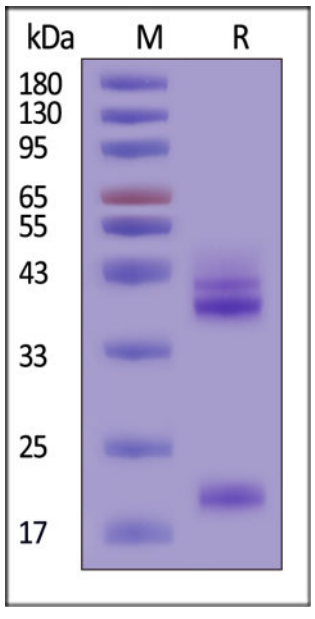
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

ACRO Quality Management System

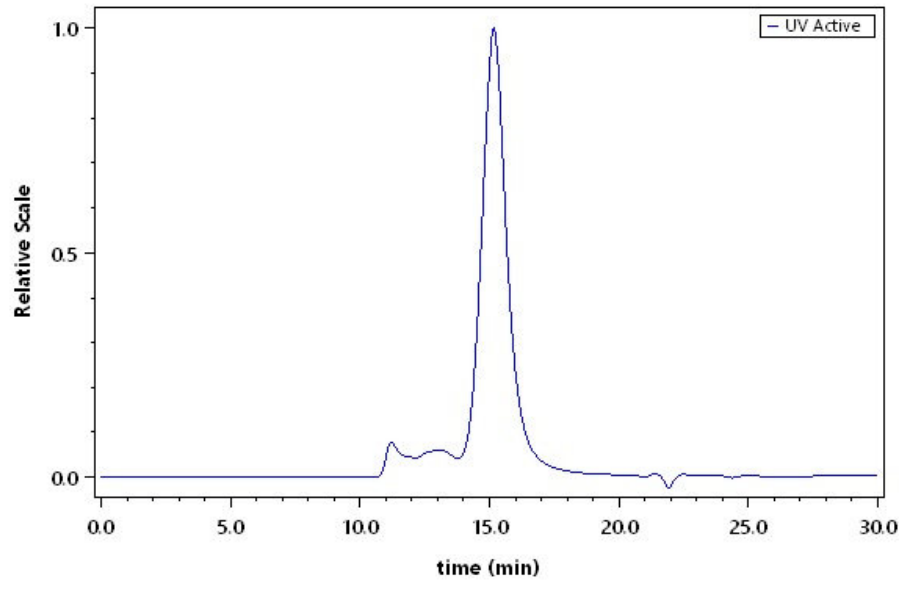
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



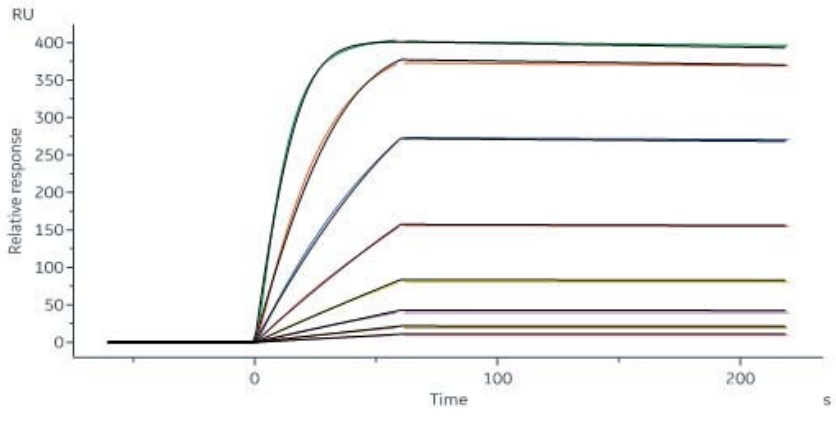
Human IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC



The purity of Human IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-H52W5AI2) was greater than 85% as determined by SEC-HPLC.

Activity-SPR



Mirikizumab captured on Protein A Chip can bind Human IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-H52W5AI2) with an affinity constant of 95.7 pM as determined in a SPR assay (Biacore 8K) (QC 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.

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