Human IL-12B / NKSF2 / p40 Protein, His Tag

Catalog # NK2-H52H7AI2

Application

Human IL-12B Protein, His Tag 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

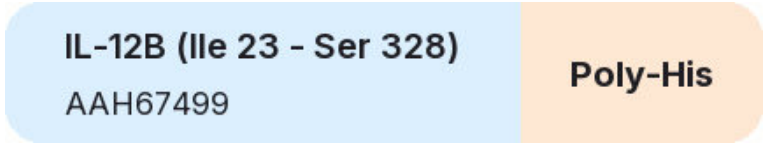
IL12B, CLMF, CLMF2, NKSF, NKSF2, p40

Source

Human IL-12B Protein, His Tag (NK2-H52H7AI2) is expressed from human 293 cells (HEK293). It contains AA Ile 23 - Ser 328 (Accession # AAH67499).

Predicted N-terminus: Ile 23

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 36.6 kDa. The protein migrates as 38-39 kDa, 41-42 kDa and 44 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.

>90% as determined by SEC-HPLC.

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.

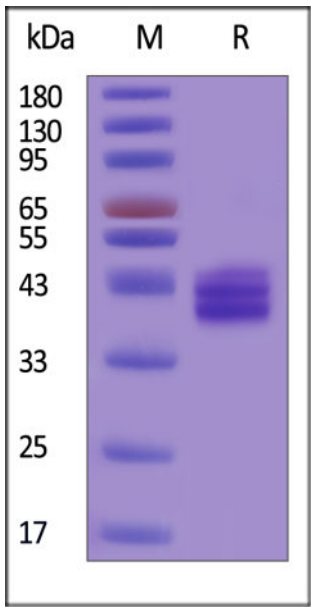
This product is stable after storage at:

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

ACRO Quality Management System

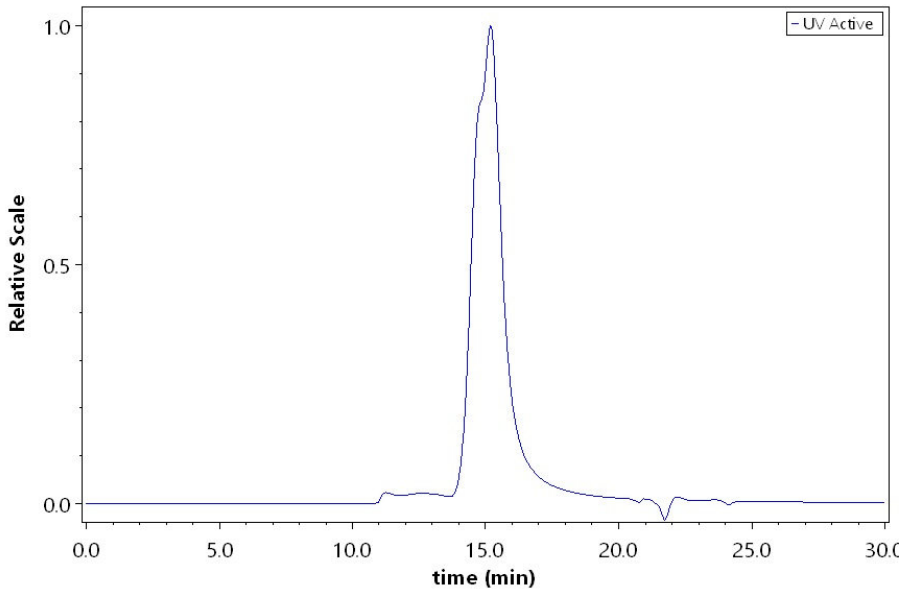
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



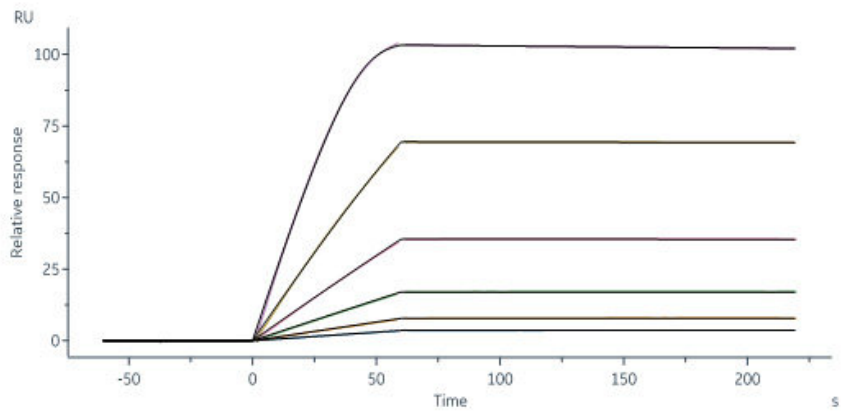
Human IL-12B Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC



The purity of Human IL-12B Protein, His Tag (Cat. No. NK2-H52H7AI2) was greater than 90% as determined by SEC-HPLC.

Activity-SPR



Monoclonal Anti-Human IL23A&IL12B P40 domain Antibody, Human IgG1 captured on Protein A Chip can bind Human IL-12B Protein, His Tag (Cat. No. NK2-H52H7AI2) with an affinity constant of 6.94 pM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

Interleukin-12 (IL12) is also known as natural killer cell stimulatory factor (NKSF), cytotoxic lymphocyte maturation factor (CLMF) , is a heterodimeric cytokine encoded by two separate genes, IL-12A (p35) and IL-12B (p40). IL12 is naturally produced by dendritic cells, macrophages and human B-lymphoblastoid cells (NC-37) in response to antigenic stimulation. IL-12 is involved in the differentiation of naive T cells into Th0 cells and plays an important role in the activities of natural killer cells and T lymphocytes.IL-12 also has anti-angiogenic activity, which means it can block the formation of new blood vessels.
Interleukin-12 subunit beta (IL12B) also known as NKSF2, CLMF2 and P40. Interleukin-12 subunit beta has been shown to interact with IL23. A large excess of monomeric IL12B is also secreted by the cells producing IL12, and exhibits no demonstrable biological activity. Overexpression of IL12B gene has been shown to be associated with the pathogenesis of multiple sclerosis. In addition, studies have revealed that the promoter polymorphism of this gene is implicated in the severity of atopic and non-atopic asthma in children.

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