Human IGFBP-3 Protein, His Tag

Catalog # IG3-H52H9AI

Application

Human IGFBP-3 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 and supporting high-throughput experimental validation to accelerate 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.

Synonyms

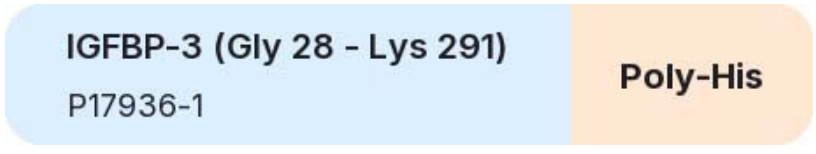
IGFBP3, BP-53, IBP3

Source

Human IGFBP-3 Protein, His Tag (IG3-H52H9AI) is expressed from human 293 cells (HEK293). It contains AA Gly 28 - Lys 291 (Accession # P17936-1).

Predicted N-terminus: Gly 28

Molecular Characterization



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

The protein has a calculated MW of 30.6 kDa. The protein migrates as 38-48 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.

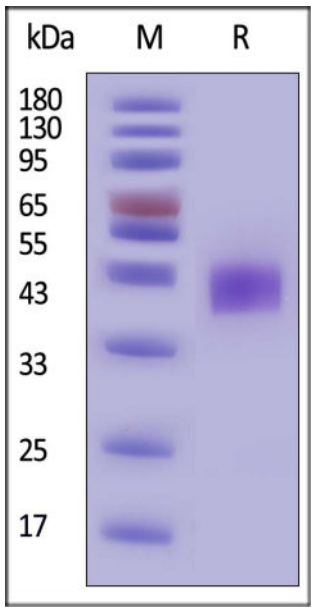
This product is stable after storage at:

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

ACRO Quality Management System

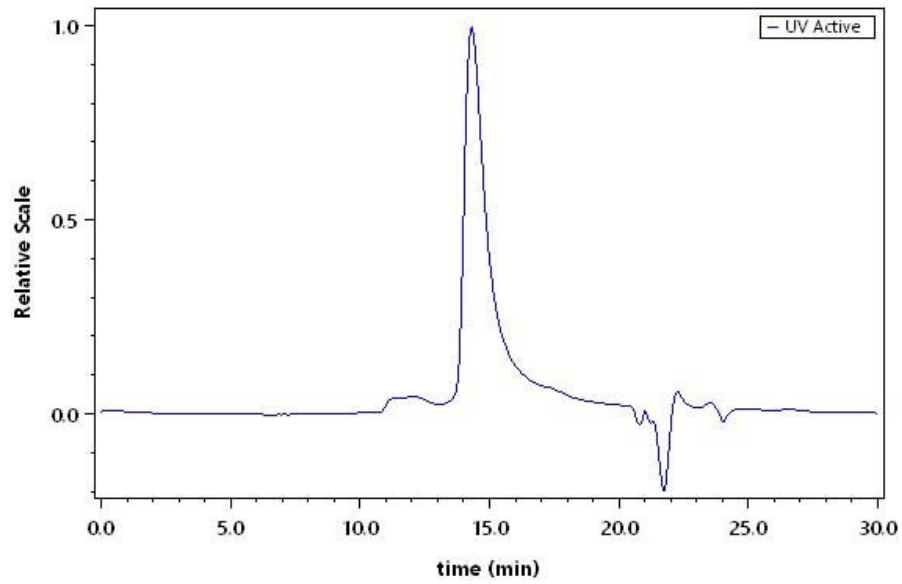
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



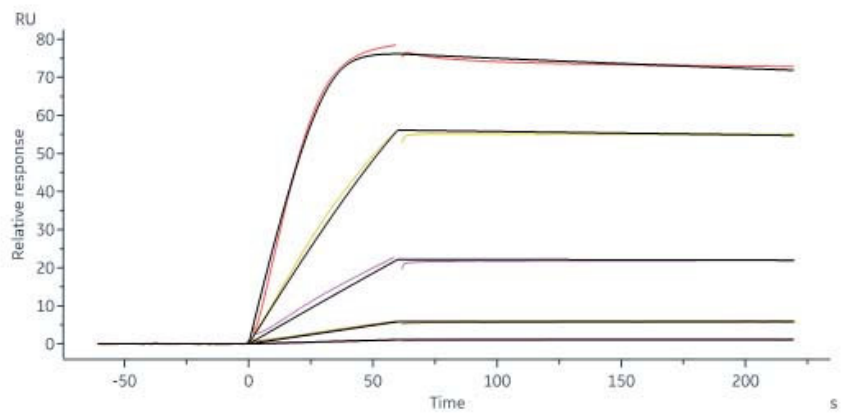
Human IGFBP-3 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC



The purity of Human IGFBP-3 Protein, His Tag (Cat. No. IG3-H52H9AI) was greater than 85% as determined by SEC-HPLC.

Activity-SPR



Human IGF-I Protein, Fc Tag (Cat. No. IG1-H5263) captured on Protein A Chip can bind Human IGFBP-3 Protein, His Tag (Cat. No. IG3-H52H9AI) with an affinity constant of 27.3 pM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

Insulin-like growth factor-binding protein 3 is also known as IGFBP3, is a protein that, in humans, is encoded by the IGFBP3 gene. IGFBP3 forms a ternary complex of about 140 ~150 kDa with IGF1 or IGF2 and a glycoprotein insulin-like growth factor acid-labile subunit (ALS), thus alter the interaction of IGFs with their cell surface receptors. IGFBP3 exerts either proapoptotic or growth stimulatory effects depending upon the cellular context. Studies have shown that IGFBP3 can leads to the induction of apoptosis dependent or independent of the IGF-IGF receptor axis, accordingly acts as a negative regulator of tumorigenesis and progressing in certain carcinomas. The highest expression level is found in the nonparanchymal cells of the liver. Expression levels are also higher during extrauterine life and peak during puberty.

Discounts, Gifts, and more!