Human Integrin alpha V beta 3 (ITGAV&ITGB3) Heterodimer Protein, His Tag&Tag Free

Catalog # IT3-H52E3AI

Application

Human ITGAV&ITGB3 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 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

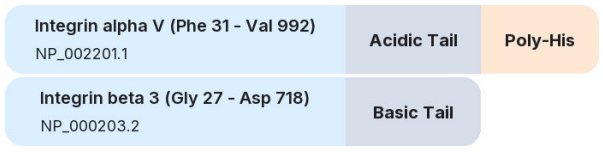
Integrin alpha V beta 3, ITGAV&ITGB3

Source

Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free (IT3-H52E3AI) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Gly 27 - Asp 718 (ITGB3) (Accession # NP_002201.1 (ITGAV) & NP_000203.2 (ITGB3)).

Predicted N-terminus: Phe 31 & Gly 27

Molecular Characterization



Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGAV and ITGB3, has a calculated MW of 112.9 kDa (ITGAV) and 81.8 kDa (ITGB3). Subunit ITGAV is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and subunit ITGB3 contains no tag but a basic tail at the C-terminus. The protein migrates as 95-100 kDa, 120-130 kDa and 140-150 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.

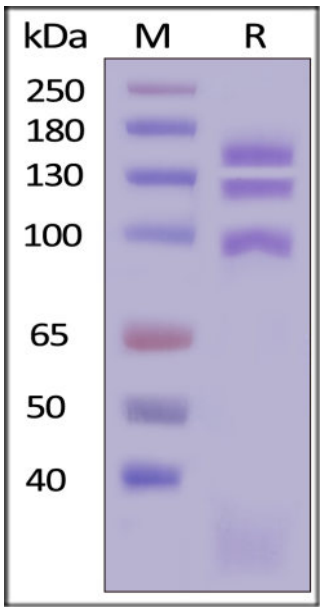
This product is stable after storage at:

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

ACRO Quality Management System

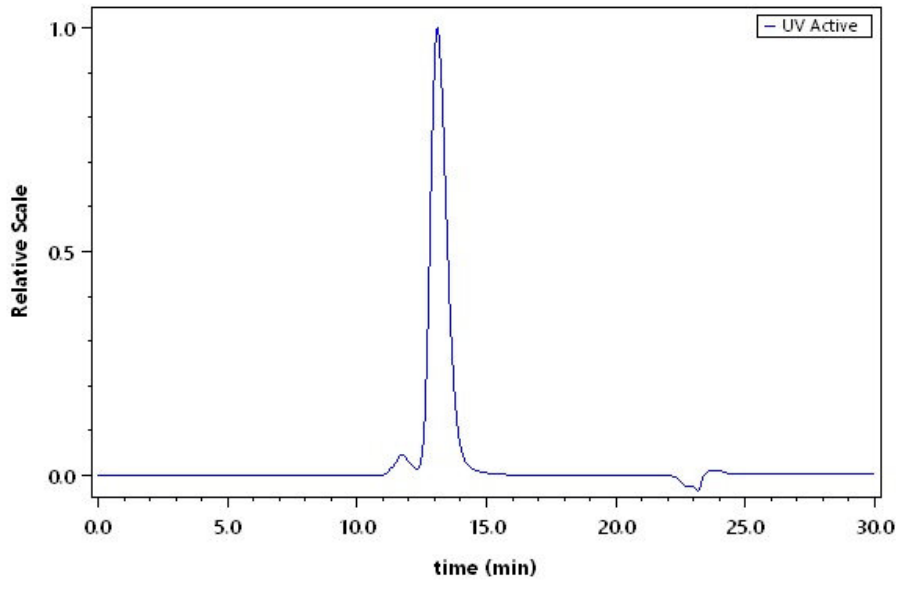
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



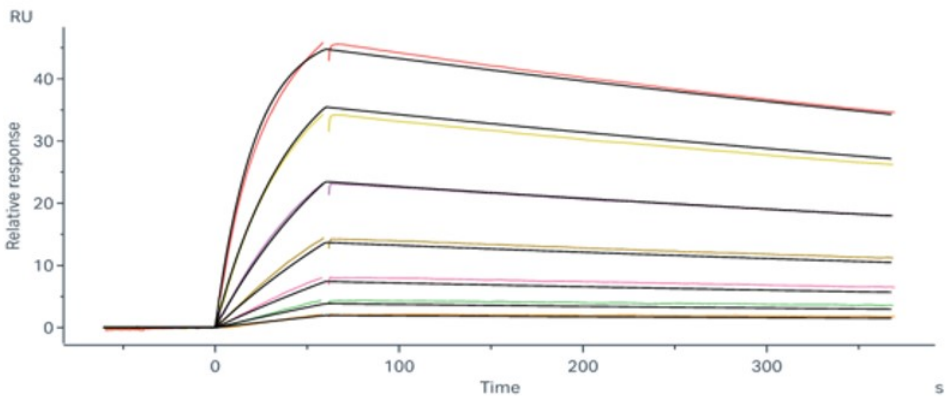
Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC



The purity of Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT3-H52E3AI) was greater than 90% as determined by SEC-HPLC.

Activity-SPR



Abituzumab (biosimilar) captured on Protein A Chip can bind Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT3-H52E3AI) with binding affinity comparable to the quality standard, as determined by SPR (Biacore 8K) (QC tested).

Background

Integrin alpha-V/beta-3 (ITGAV:ITGB3) is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrins alpha-IIb/beta-3 and alpha-V/beta-3 recognize the sequence R-G-D in a wide array of ligands. Also, Integrin alpha-V/beta-3 acts as a receptor for herpes virus 8/HHV-8, coxsackievirus A9, Hantaan virus, cytomegalovirus/HHV-5, human metapneumovirus, human parechovirus 1 and west nile virus. Furthermore, in case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

Discounts, Gifts, and more!