

Human Integrin alpha V beta 6 (ITGAV&ITGB6) Heterodimer Protein, His Tag&Tag Free

Catalog # IT6-H52E1AI



Application

Human ITGAV&ITGB6 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 6, ITGAV&ITGB6

Source

Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (IT6-H52E1AI) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Gly 22 - Asn 707 (ITGB6) (Accession # [NP_002201.1](#) (ITGAV) & [AAI21179.1](#) (ITGB6)).

Predicted N-terminus: Phe 31 & Gly 22

Molecular Characterization

Integrin alpha V (Phe 31 - Val 992) NP_002201.1	Acidic Tail	Poly-His
Integrin beta 6 (Gly 22 - Asn 707) AAI21179.1	Basic Tail	

Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGAV and ITGB6, has a calculated MW of 112.9 kDa (ITGAV) & 79.6 kDa (ITGB6). Subunit ITGAV is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and an Avi tag (Avitag™) and subunit ITGB6 contains no tag but a basic tail at the C-terminus. The protein migrates as 90-110 kDa, 120-125 kDa and 130-150 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a heterodimer.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

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.

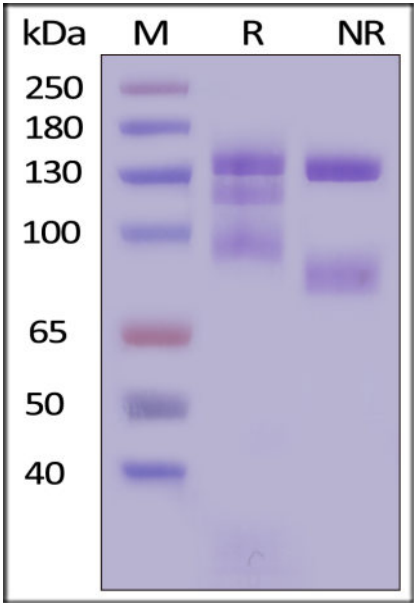
This product is stable after storage at:

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

ACRO Quality Management System

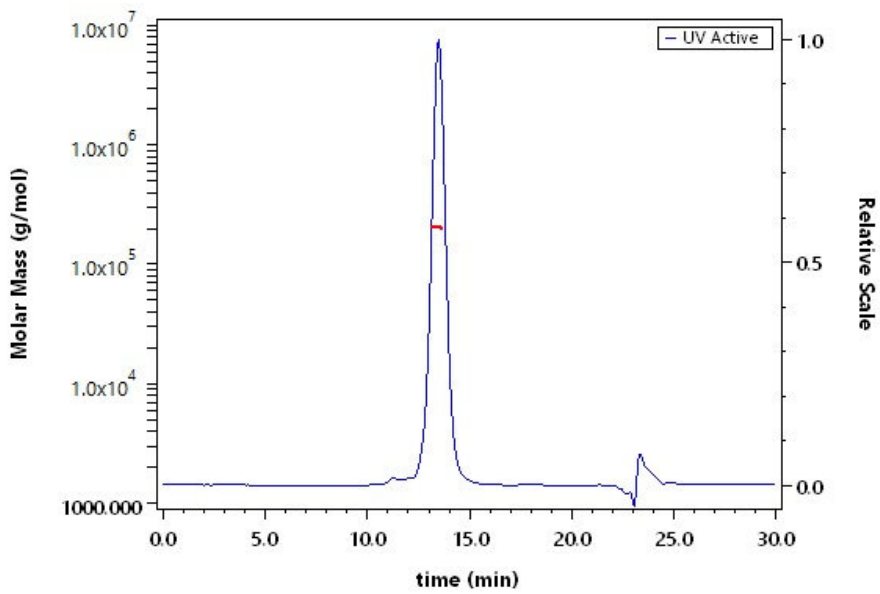
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



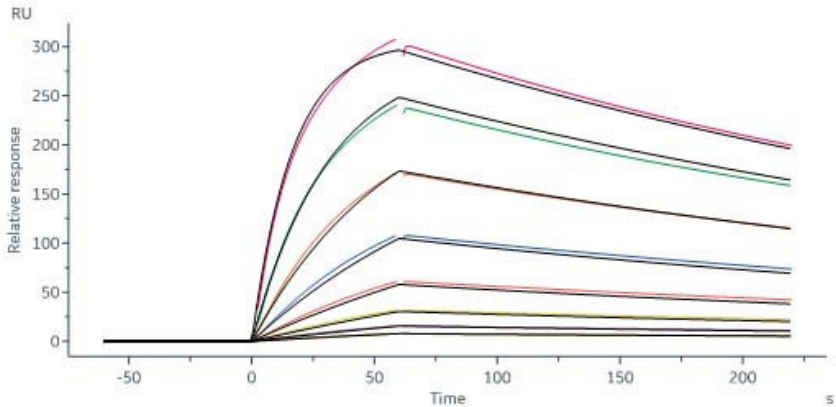
Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-H52E1AI) is more than 90% and the molecular weight of this protein is around 190-230 kDa verified by SEC-MALS.

Activity-SPR



Monoclonal Anti-Integrin alpha V beta 6 antibody, Human IgG1 (AM913) captured on Protein A Chip can bind Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-H52E1AI) with an affinity constant of 8.91 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

Integrin alpha V beta 6 is a heterodimer of beta-6 associating with alpha-V. Integrin alpha-V beta-6 is a receptor for fibronectin and cytotactin. It recognizes the sequence R-G-D in its ligands. Internalisation of integrin alpha-V beta-6 via clathrin-mediated endocytosis promotes carcinoma cell invasion. Also, Integrin alpha-V beta-6 acts as a receptor for coxsackievirus A9 and coxsackievirus B1 as well as herpes simplex virus-1/HHV-1. Furthermore, it binds the TGF-beta latency-associated peptide (LAP) and activates TGF-beta 1 or TGF-beta 3 from large latent complexes. This activation requires interaction with LTBP-1 and fibronectin, and is enhanced by PAR-1.



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