



## Synonym

Integrin alpha V beta 6,ITGAV&ITGB6

## Source

Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free(IT6-H52E1) 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 (ITGAV) & Gly 22 (ITGB6)

## Molecular Characterization

ITGAV (Phe 31 - Val 992) NP_002201.1	Acidic Tail	Poly-his
ITGB6 (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 subunit ITGB6 contains no tag but a basic tail at the C-terminus. The protein migrates as 85 kDa (ITGB6) and 140 kDa (ITGAV) when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

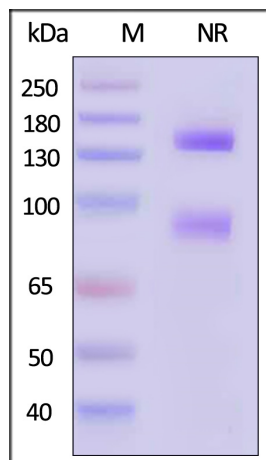
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

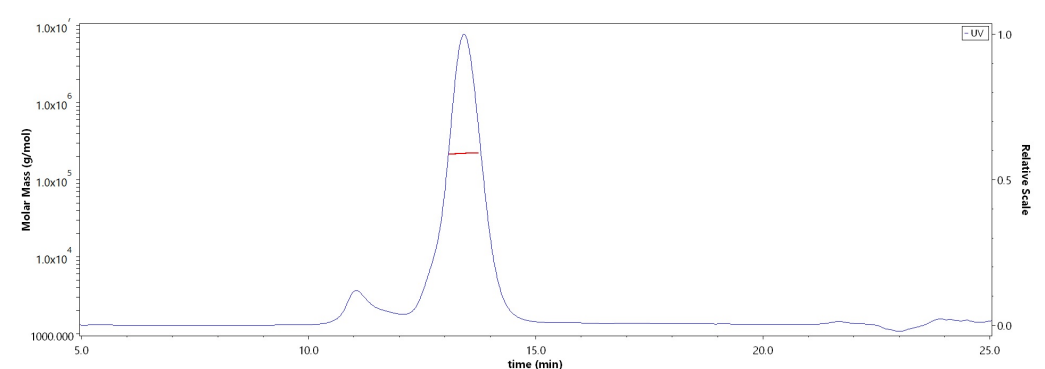
## SDS-PAGE



Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA

## SEC-MALS



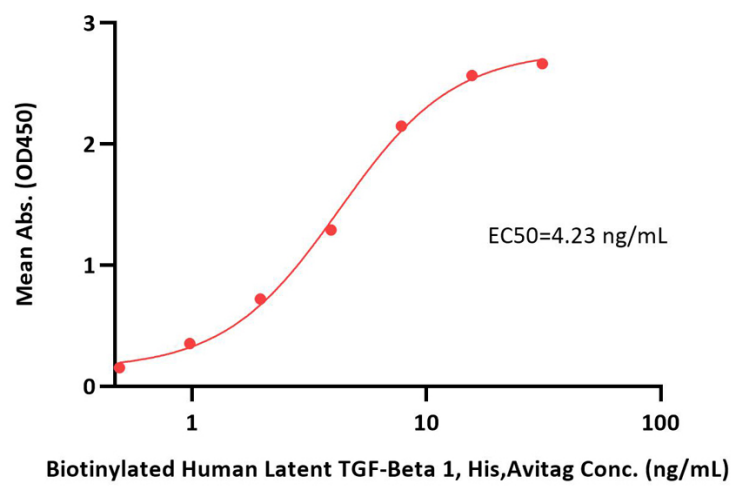
The purity of Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-H52E1) is more than 85% and the molecular weight of this protein is around 200-240 kDa verified by SEC-MALS. [Report](#)

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and more!



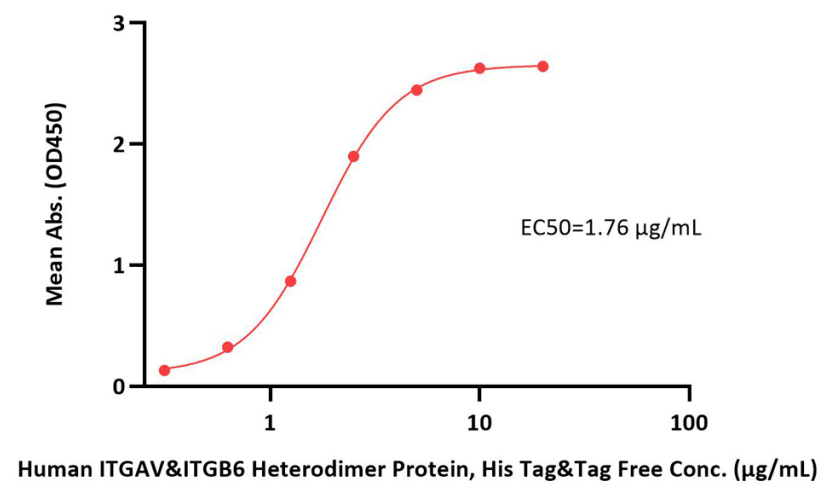


Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free ELISA  
0.5 µg of Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free per well



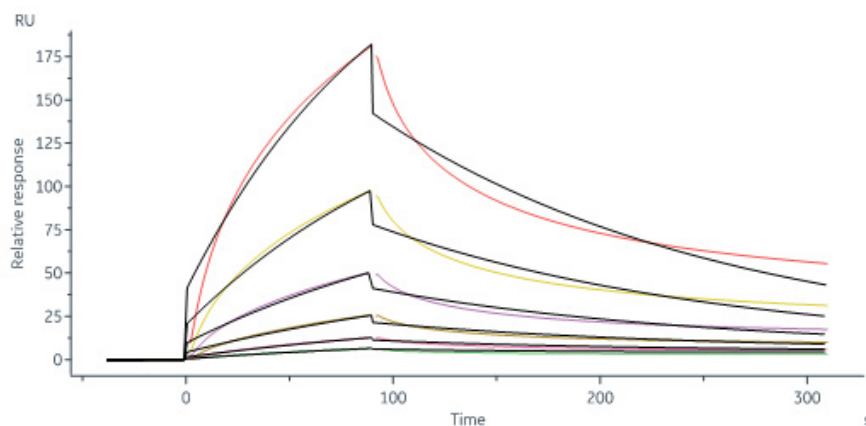
Immobilized Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-H52E1) at 5 µg/mL (100 µL/well) can bind Biotinylated Human Latent TGF-Beta 1, His,Avitag (Cat. No. TG1-H82Qb) with a linear range of 0.5-4 ng/mL (QC tested).

Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free ELISA  
1 µg of Human Fibronectin per well



Immobilized Human Fibronectin at 10 µg/mL (100 µL/well) can bind Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-H52E1) with a linear range of 0.313-2.5 µg/mL (Routinely tested).

## Bioactivity-SPR



Fibronectin fragment, premium grade (Cat. No. FIN-H5113) immobilized on CM5 Chip can bind Human ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-H52E1) with an affinity constant of 1.23 µM as determined in a SPR assay (Biacore 8K) (Routinely 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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