

### Synonym

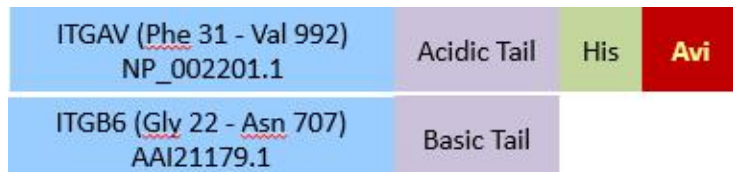
Integrin alpha V beta 6,ITGAV&ITGB6

### Source

Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free(IT6-H82E4) 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



Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free, produced by co-expression of ITGAV and ITGB6, has a calculated MW of 114.7 kDa (ITGAV) and 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 predicted N-terminus is Phe 31 (ITGAV) & Gly 22 (ITGB6). The non-reducing (NR) protein migrates as 135-150 kDa (ITGAV) and 82-95 kDa (ITGB6) respectively due to glycosylation.

### Labeling

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

### Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

### 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

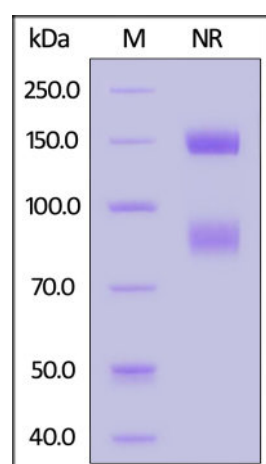
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

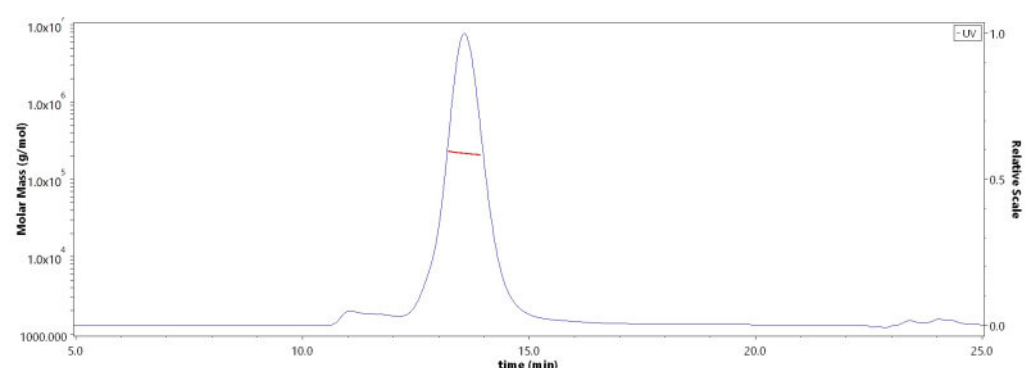
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### SDS-PAGE



Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&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 90%.

### SEC-MALS



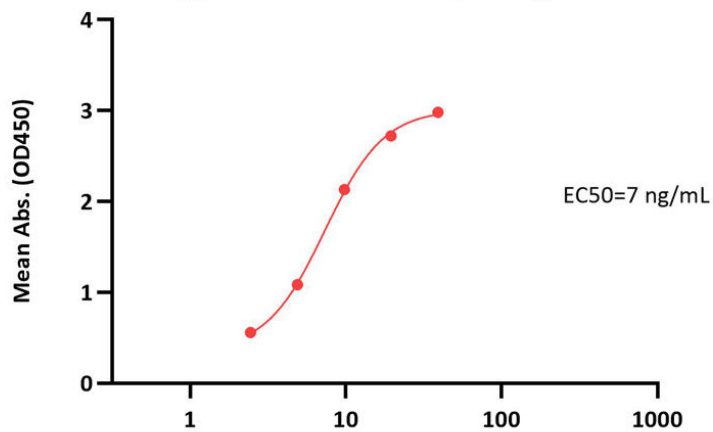
The purity of Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT6-H82E4) is more than 90% and the

Catalog # IT6-H82E4

molecular weight of this protein is around 200-235 kDa verified by SEC-MALS.  
[Report](#)

## Bioactivity-ELISA

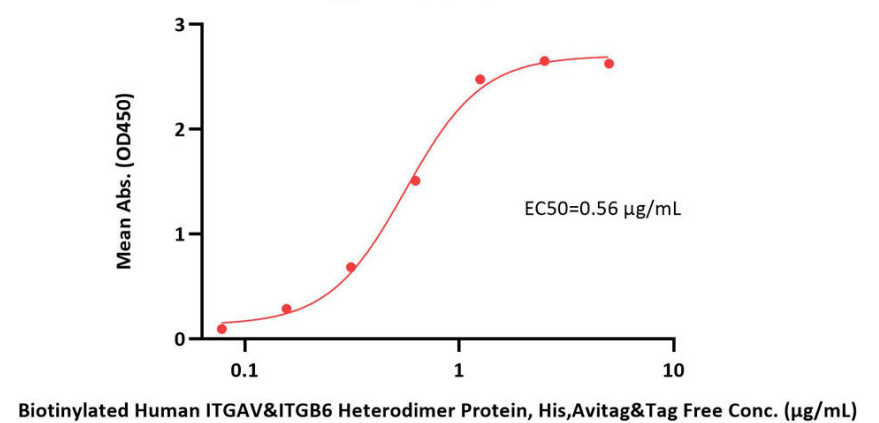
**Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free ELISA**  
0.5 µg of Human Latent TGFB1, His Tag per well



Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free Conc. (ng/mL)

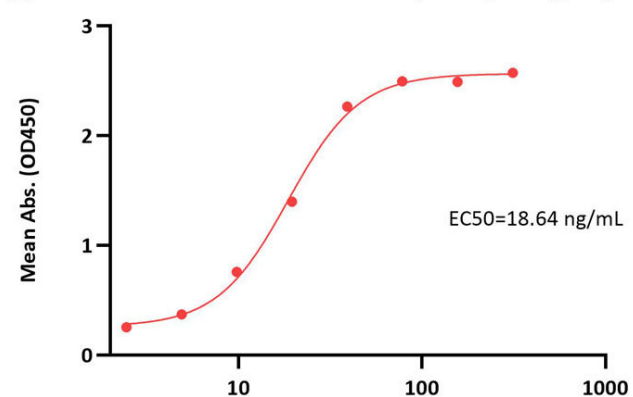
Immobilized Human Latent TGFB1, His Tag (Cat. No. TG1-H524x) at 5 µg/mL (100 µL/well) can bind Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT6-H82E4) with a linear range of 5-39 ng/mL (QC tested).

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



Immobilized Fibronectin at 10 µg/mL (100 µL/well) can bind Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT6-H82E4) with a linear range of 0.078-1.25 µg/mL (Routinely tested).

**Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free ELISA**  
0.1 µg of Human LRRC32&TGFB1 Heterotrimer protein, His Tag&Tag Free per well



Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free Conc. (ng/mL)

Immobilized Human LRRC32&TGFB1 Heterotrimer protein, His Tag&Tag Free (Cat. No. GA1-H52W9) at 1 µg/mL (100 µL/well) can bind Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT6-H82E4) with a linear range of 2-39 ng/mL (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.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.