

### Synonym

Integrin alpha V beta 3,ITGAV&ITGB3

### Source

Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His,Avitag&Tag Free(IT3-H82W9) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Gly 27 - Asp 718 (ITGB3) (Accession # [P06756-1](#) (V783I) & [P05106-1](#) ).

Predicted N-terminus: Phe 31 (ITGAV) & Gly 27 (ITGB3)

### Molecular Characterization

ITGAV (Phe 31 - Val 992 ) P06756-1	Acidic Tail	Poly-his	Avi
ITGB3 (Gly 27 - Asp 718) P05106-1	Basic Tail		

Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His, Avitag™&Tag Free, produced by co-expression of ITGAV and ITGB3, has a calculated MW of 114.6 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 an Avi tag (Avitag™) and subunit ITGB3 contains no tag but a basic tail at the C-terminus. The predicted N-terminus is Phe 31 (ITGAV) & Gly 27 (ITGB3). The non-reducing (NR) protein migrates as 135 kDa (ITGAV) & 80 kDa (ITGB3) 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

>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

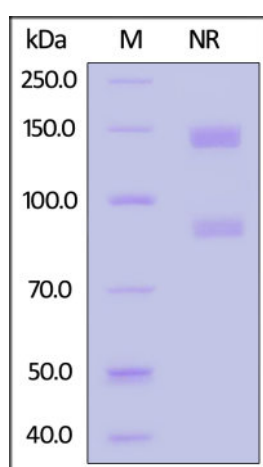
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

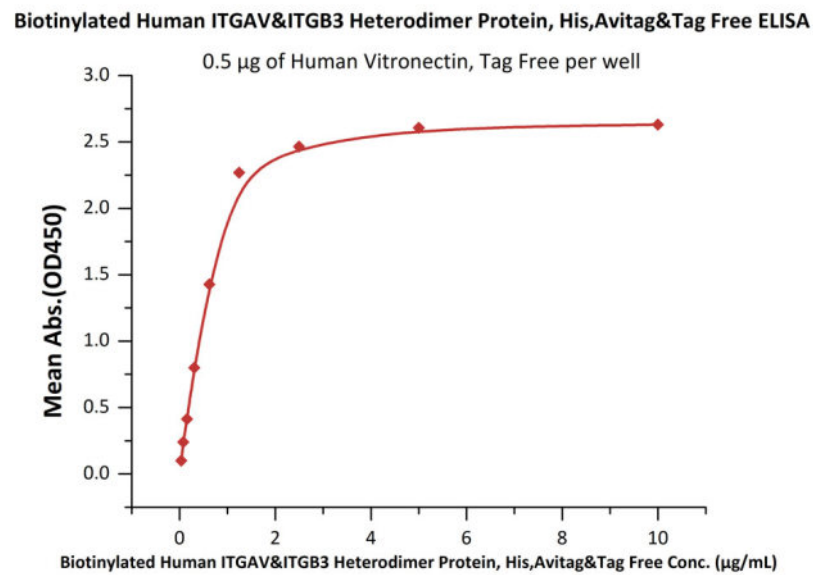
This product is stable after storage at:

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

### SDS-PAGE



Biotinylated Human ITGAV&ITGB3 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 95%.

**Bioactivity-ELISA**

Immobilized Human Vitronectin at 5 µg/mL (100 µL/well) can bind Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT3-H82W9) with a linear range of 0.039-2.5 µg/mL (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.

**Clinical and Translational Updates**

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