

### Synonym

Integrin isoform alpha-7X2B beta 1,ITGA7X2BB1,ITGA7X2B&ITGB1

### Source

Biotinylated Human ITGA7X2B&ITGB1 Heterodimer Protein, Tag Free&His,Avitag (IT1-H82W5) is expressed from human 293 cells (HEK293). It contains AA Phe 34 - Trp 1038 (ITGA7X2B) & Gln 21 - Asp 728 (ITGB1) (Accession # [Q13683-7](#)(ITGA7X2B) & [P05556-1](#)(ITGB1)).  
Predicted N-terminus: Phe 34 (ITGA7X2B) & Gln 21 (ITGB1)

### Molecular Characterization

ITGA7X2B (Phe 34 - Trp 1038) Q13683-7	Acidic Tail		
ITGB1 (Gln 21 - Asp 728) P05556-1	Basic Tail	Poly-his	Avi

Biotinylated Human ITGA7X2B & ITGB1 Heterodimer Protein, produced by co-expression of ITGA7X2B and ITGB1, has a calculated MW of 116.9 kDa (ITGA7X2B) and 86.7 kDa (ITGB1). Subunit ITGA7X2B is fused with an acidic tail but no tag at the C-terminus and subunit ITGB1 contains a basic tail at the C-terminus and followed by a polyhistidine tag and an Avi tag (Avitag™). The non-reducing (NR) protein migrates as 100-115 kDa due to glycosylation.

### Biotinylation

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

### 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.

### Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5. Normally trehalose is added as protectant before lyophilization.

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

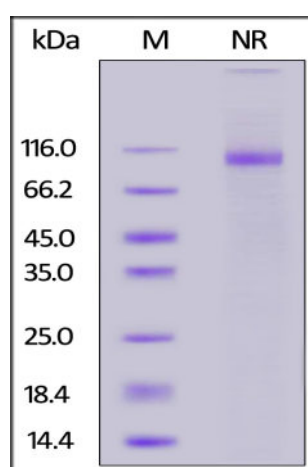
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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 ITGA7X2B&ITGB1 Heterodimer Protein, Tag Free&His,Avitag on SDS-PAGE under non-reducing (NR) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

### Background

## Biotinylated Human Integrin isoform alpha-7X2B beta 1 (ITGA7X2B&ITGB1) Heterodimer Protein, Tag Free&His,Avitag™



Catalog # IT1-H82ME

Integrin alpha-7/beta-1 is the primary laminin receptor on skeletal myoblasts and adult myofibers, which is highly expressed in cardiac muscle, skeletal muscle and smooth muscle cells, and localizes to Z-disc and costamere structures. It is involved in the maintenance of the myofibers cytoarchitecture as well as for their anchorage, viability and functional integrity. Isoform Alpha-7X2B and isoform Alpha-7X1B promote myoblast migration on laminin 1 and laminin 2/4, but isoform Alpha-7X1B is less active on laminin 1 (In vitro). ITGA7 has been shown to interact with Merosin, ITGB1, FHL2 and FHL3.

### Clinical and Translational Updates

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