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

Catalog # IT1-H82W5





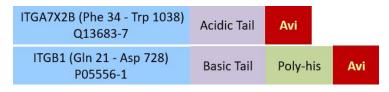
## **Synonym**

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

#### Source

Biotinylated Human ITGA7X2B&ITGB1 Heterodimer Protein,
Avitag&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**



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 and an Avi tag (Avitag<sup>TM</sup>) 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<sup>TM</sup>). The non-reducing (NR) protein migrates as 100-115 kDa due to glycosylation.

## Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> 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.

## **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from 0.22  $\mu m$  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

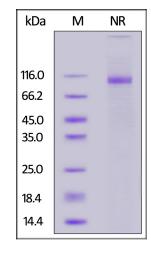
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



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## Background

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.

