

### Synonym

integrin alpha-7 isoform X1B beta 1,ITGA7X1B&ITGB1,ITGA7X1BB1

### Source

Cynomolgus ITGA7X1B&ITGB1 Heterodimer Protein, Tag Free&His Tag(IT1-C52W3) is expressed from human 293 cells (HEK293). It contains AA Phe 34 - Pro 1081 (ITGA7X1B) & Gln 21 - Asp 728 (ITGB1) (Accession # [XP\\_005571182.1](#) (ITGA7X1B) & [XP\\_015311227.1](#) (ITGB1)).  
Predicted N-terminus: Phe 34 (ITGA7X1B) & Gln 21 (ITGB1)

### Molecular Characterization

ITGA7X1B (Phe 34 - Pro 1081) XP_005571182.1	Acidic Tail	
ITGB1 (Gln 21 - Asp 728) XP_015311227.1	Basic Tail	Poly-his

Cynomolgus ITGA7X1B&ITGB1 Heterodimer Protein, Tag Free&His Tag, produced by co-expression of ITGA7X1B and ITGB1, has a calculated MW of 115.1 kDa (ITGA7X1B) and 85.0 kDa (ITGB1). Subunit ITGA7X1B contains no tag but an acidic tail at the C-terminus and subunit ITGB1 contains a polyhistidine tag and a basic tail at the C-terminus. The non-reducing (NR) protein migrates as 95-115 kDa due to glycosylation.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>95% 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

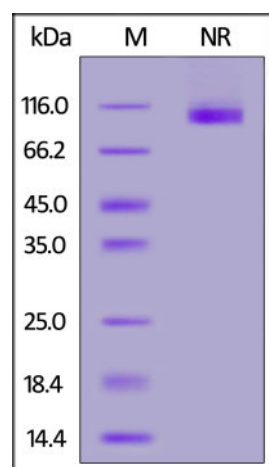
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

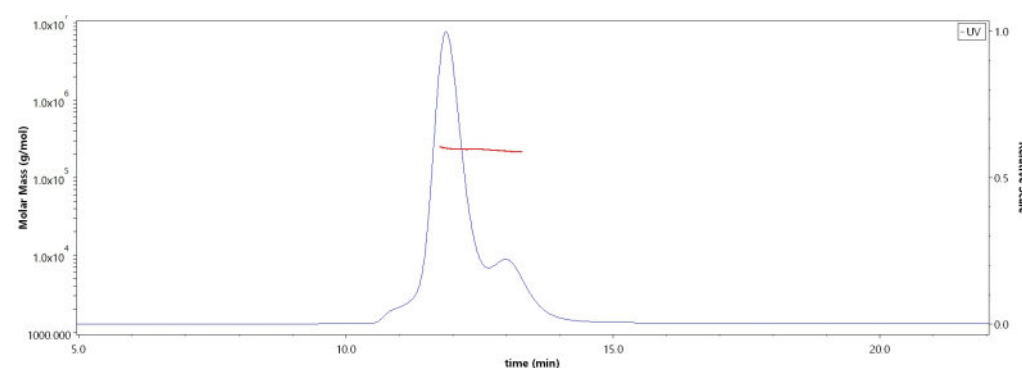
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### SDS-PAGE



Cynomolgus ITGA7X1B&ITGB1 Heterodimer Protein, Tag Free&His Tag on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

### SEC-MALS



The purity of Cynomolgus ITGA7X1B&ITGB1 Heterodimer Protein, Tag Free&His Tag (Cat. No. IT1-C52W3) is more than 90% and the molecular weight of this protein is around 210-250 kDa verified by SEC-MALS.

[Report](#)

### 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

## Cynomolgus Integrin isoform alpha-7X1B beta 1 (ITGA7X1B&ITGB1) Heterodimer Protein, Tag Free&His Tag (MALS verified)



Catalog # IT1-C52W2

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.