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

Catalog # IT1-C52W3





## 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 / rFC 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

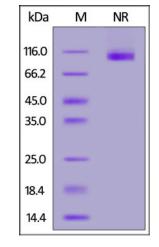
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

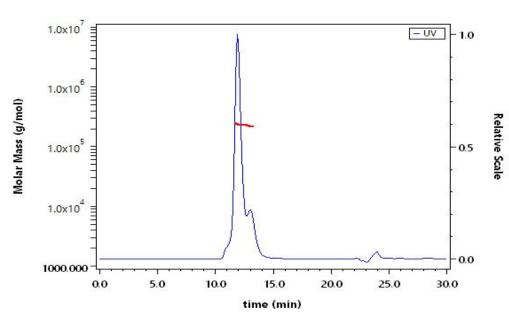
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## **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 IIGA/XIB&IIGBI 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



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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.

