Cynomolgus Integrin alpha V beta 6 (ITGAV&ITGB6) Heterodimer Protein, His Tag&Tag Free (MALS verified)

Catalog # IT6-C52W9

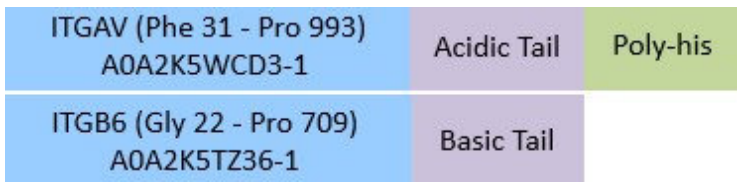
Synonym

Integrin alpha V beta 6,ITGAV&ITGB6

Source

Cynomolgus ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free(IT6-C52W9) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Pro 993 (ITGAV) & Gly 22 - Pro 709 (ITGB6) (Accession # A0A2K5WCD3-1 (ITGAV) & A0A2K5TZ36-1 (ITGB6)).
Predicted N-terminus: Phe 31 (ITGAV) & Gly 22 (ITGB6)

Molecular Characterization



Cynomolgus Integrin alpha V beta 6 (ITGAV&ITGB6) Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGAV and ITGB6, has a calculated MW of 113.1 kDa (ITGAV) and 79.0 kDa (ITGB6). Subunit ITGAV is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and subunit ITGB6 contains no tag but a basic tail at the C-terminus. The predicted N-terminus is Phe 31 (ITGAV) & Gly 22 (ITGB6). The non-reducing (NR) protein migrates as 135-145 kDa (ITGAV) & 85-95 kDa (ITGB6) when calibrated against Star Ribbon Pre-stained Protein Marker respectively due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>90% 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, pH8.0 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

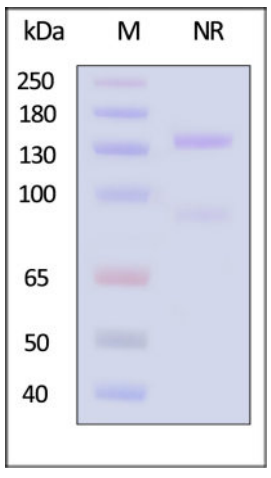
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

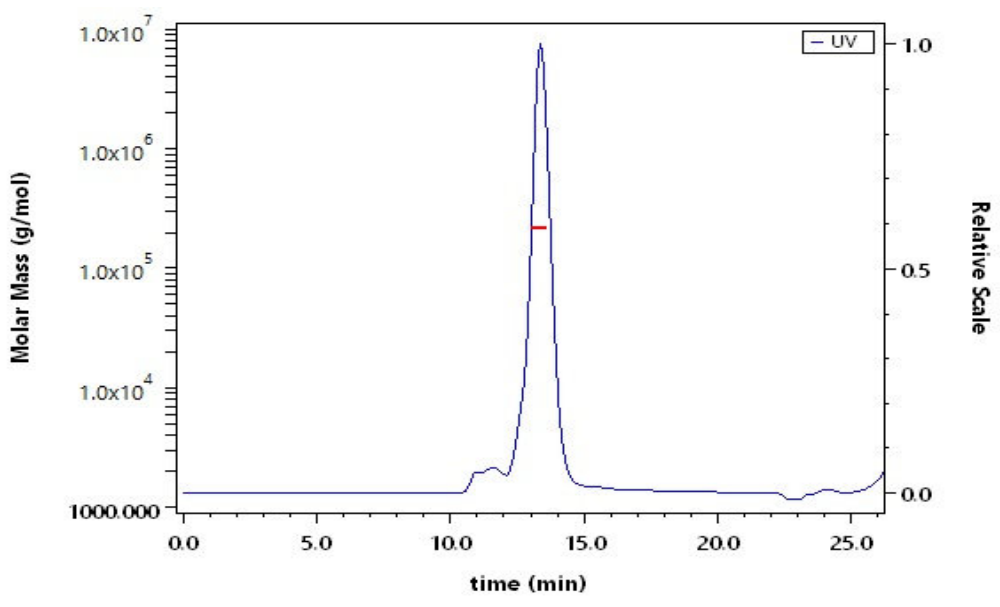
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



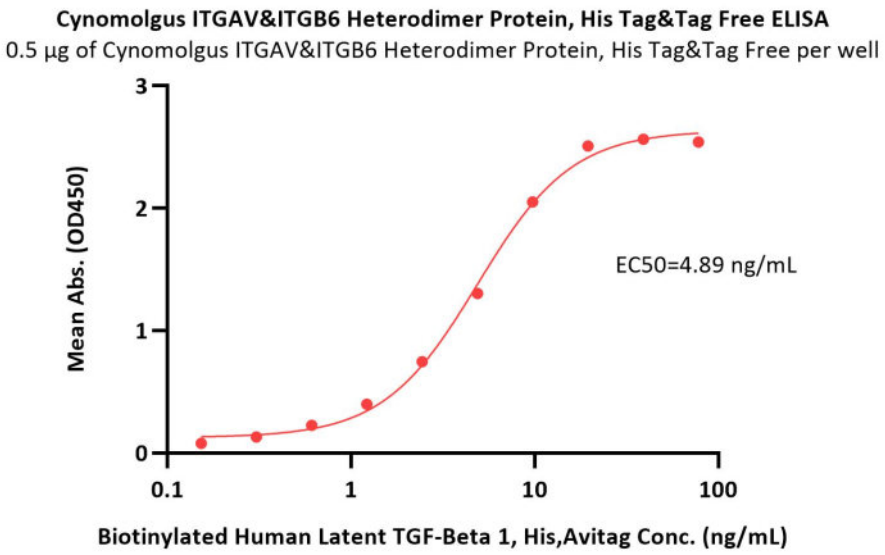
Cynomolgus ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

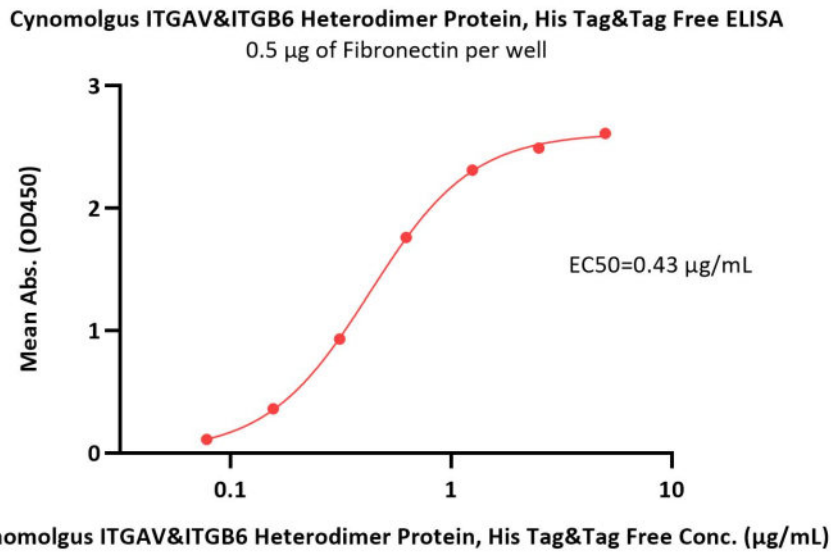


The purity of Cynomolgus ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-C52W9) is more than 90% and the molecular weight of this protein is around 195-245 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

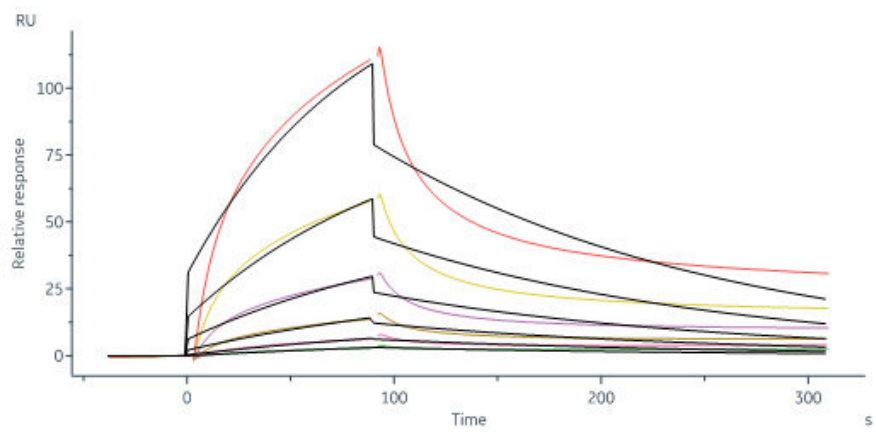


Immobilized Cynomolgus ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-C52W9) at 5 μg/mL (100 μL/well) can bind Biotinylated Human Latent TGF-Beta 1, His,Avitag (Cat. No. TG1-H82Qb) with a linear range of 0.2-10 ng/mL (QC tested).



Immobilized Fibronectin at 5 μg/mL (100 μL/well) can bind Cynomolgus ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-C52W9) with a linear range of 0.078-1.25 μg/mL (Routinely tested).

Bioactivity-SPR



Fibronectin fragment, premium grade (Cat. No. FIN-H5113) immobilized on CM5 Chip can bind Cynomolgus ITGAV&ITGB6 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT6-C52W9) with an affinity constant of 0.946 μM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Integrin alpha V beta 6 is a heterodimer of beta-6 associating with alpha-V. Integrin alpha-V beta-6 is a receptor for fibronectin and cytotactin. It recognizes the sequence R-G-D in its ligands. Internalisation of integrin alpha-V beta-6 via clathrin-mediated endocytosis promotes carcinoma cell invasion. Also, Integrin alpha-V beta-6 acts as a receptor for coxsackievirus A9 and coxsackievirus B1 as well as herpes simplex virus-1/HHV-1. Furthermore, it binds the TGF-beta latency-associated peptide (LAP) and activates TGF-beta 1 or TGF-beta 3 from large latent complexes. This activation requires interaction with LTBP-1 and fibronectin, and is enhanced by PAR-1.