Biotinylated Human Integrin alpha V beta 6 (ITGAV&ITGB6) Heterodimer Protein, His,Avitag™&Tag Free (MALS verified)

Catalog # IT6-H82E4





Synonym

Integrin alpha V beta 6,ITGAV&ITGB6

Source

Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free(IT6-H82E4) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Gly 22 - Asn 707 (ITGB6) (Accession # NP_002201.1 (ITGAV) & AAI21179.1 (ITGB6)).

Predicted N-terminus: Phe 31 (ITGAV) & Gly 22 (ITGB6)

Molecular Characterization



Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free, produced by co-expression of ITGAV and ITGB6, has a calculated MW of 114.7 kDa (ITGAV) and 79.6 kDa (ITGB6). Subunit ITGAV is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and an Avi tag (AvitagTM) 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 135-150 kDa (ITGAV) and 82-95 kDa (ITGB6) respectively due to glycosylation.

Labeling

Biotinylation of this product is performed using AvitagTM 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.

>90% as determined by SEC-MALS.

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

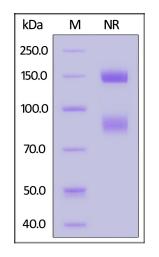
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

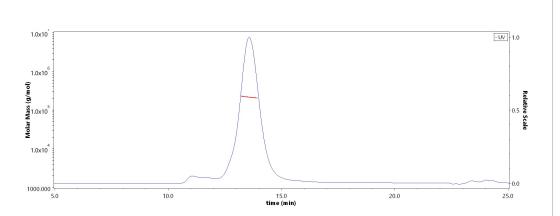
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&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%.

SEC-MALS



The purity of Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT6-H82E4) is more than 90% and the molecular weight of this protein is around 200-235 kDa verified by SEC-MALS.

Report



Biotinylated Human Integrin alpha V beta 6 (ITGAV&ITGB6) Heterodimer Protein, His,Avitag™&Tag Free (MALS verified)

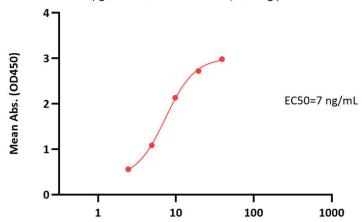
Catalog # IT6-H82E4





Bioactivity-ELISA

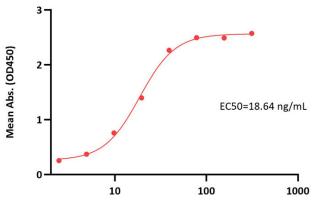
Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His, Avitag&Tag Free ELISA 0.5 µg of Human Latent TGFB1, His Tag per well



Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His, Avitag&Tag Free Conc. (ng/mL)

Immobilized Human Latent TGFB1, His Tag (Cat. No. TG1-H524x) at 5 $\,$ µg/mL (100 µL/well) can bind Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT6-H82E4) with a linear range of 5-39 ng/mL (QC tested).

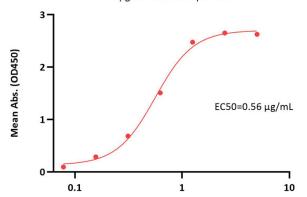
Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free ELISA 0.1 µg of Human LRRC32&TGFB1 Heterotrimer protein, His Tag&Tag Free per well



Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His, Avitag&Tag Free Conc. (ng/mL)

Immobilized Human LRRC32&TGFB1 Heterotrimer protein, His Tag&Tag Free (Cat. No. GA1-H52W9) at 1 μ g/mL (100 μ L/well) can bind Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT6-H82E4) with a linear range of 2-39 ng/mL (Routinely tested).

Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free ELISA $1~\mu g$ of Fibronectin per well



Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His, Avitag&Tag Free Conc. (μg/mL)

Immobilized Fibronectin at 10 μ g/mL (100 μ L/well) can bind Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT6-H82E4) with a linear range of 0.078-1.25 μ g/mL (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.

