Biotinylated Human Integrin alpha V beta 3 (ITGAV&ITGB3) Heterodimer Protein, His,Avitag™&Tag Free (MALS verified)

Catalog # IT3-H82W9



Synonym

Integrin alpha V beta 3,ITGAV&ITGB3

Source

Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His,Avitag&Tag Free(IT3-H82W9) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Gly 27 - Asp 718 (ITGB3) (Accession # P06756-1(V783I) & P05106-1).

Predicted N-terminus: Phe 31 (ITGAV) & Gly 27 (ITGB3)

Molecular Characterization

ITGAV (Phe 31 - Val 992) P06756-1	Acidic Tail	Poly-his	Avi
ITGB3 (Gly 27 - Asp 718) P05106-1	Basic Tail		

Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His, AvitagTM&Tag Free, produced by co-expression of ITGAV and ITGB3, has a calculated MW of 114.6 kDa (ITGAV) and 81.8 kDa (ITGB3). 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 ITGB3 contains no tag but a basic tail at the C-terminus. The predicted N-terminus is Phe 31 (ITGAV) & Gly 27 (ITGB3). The non-reducing (NR) protein migrates as 135 kDa (ITGAV) & 80 kDa (ITGB3) 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.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μ 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

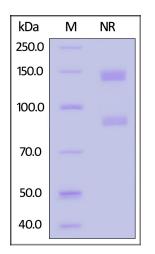
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

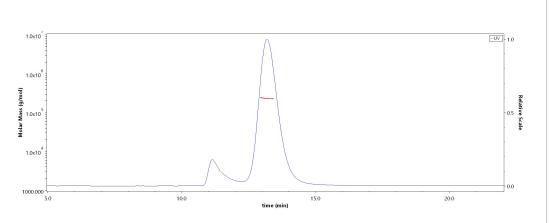
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His,Avitag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained

SEC-MALS



The purity of Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His, Avitag&Tag Free (Cat. No. IT3-H82W9) is more than 85% and the



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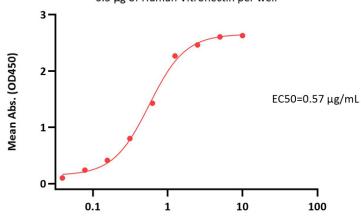
with Coomassie Blue. The purity of the protein is greater than 95%.

molecular weight of this protein is around 200-245 kDa verified by SEC-MALS.

Report

Bioactivity-ELISA

Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His, Avitag&Tag Free ELISA
0.5 μg of Human Vitronectin per well



Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His, Avitag&Tag Free Conc. (µg/mL)

Immobilized Human Vitronectin at 5 μ g/mL (100 μ L/well) can bind Biotinylated Human ITGAV&ITGB3 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT3-H82W9) with a linear range of 0.039-2.5 μ g/mL (Routinely tested).

Background

Integrin alpha-V/beta-3 (ITGAV:ITGB3) is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrins alpha-IIb/beta-3 and alpha-V/beta-3 recognize the sequence R-G-D in a wide array of ligands. Also, Integrin alpha-V/beta-3 acts as a receptor for herpes virus 8/HHV-8, coxsackievirus A9, Hantaan virus, cytomegalovirus/HHV-5, human metapneumovirus, human parechovirus 1 and west nile virus. Furthermore, in case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

Clinical and Translational Updates

