

Biotinylated Human Integrin alpha V beta 1 (ITGAV&ITGB1) Heterodimer Protein, His,Avitag™&Tag Free

Catalog # IT1-H82W6



Synonym

Integrin alpha V beta 1,ITGAV&ITGB1

Source

Biotinylated Human ITGAV&ITGB1 Heterodimer Protein, His,Avitag&Tag Free(IT1-H82W6) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Gln 21 - Asp 728 (ITGB1) (Accession # [NP_002201.1](#) (ITGAV) & [NP_002202.2](#) (ITGB1)). Predicted N-terminus: Phe 31 (ITGAV) & Gln 21 (ITGB1)

Molecular Characterization

ITGAV (Phe 31 - Val 992) NP_002201.1	Acidic Tail	Poly-his	Avi
ITGB1 (Gln 21 - Asp 728) NP_002202.2	Basic Tail		

Biotinylated Human ITGAV&ITGB1 Heterodimer Protein, His,Avitag&Tag Free, produced by co-expression of ITGAV and ITGB1, has a calculated MW of 114.7 kDa (ITGAV) and 83.7 kDa (ITGB1). Subunit ITGAV is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and an Avi tag (Avitag™) and subunit ITGB1 contains no tag but a basic tail at the C-terminus. The non-reducing (NR) protein migrates as 135-150 kDa (ITGAV) and 100-115 kDa (ITGB1) respectively due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ 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

>95% as determined by SDS-PAGE.

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

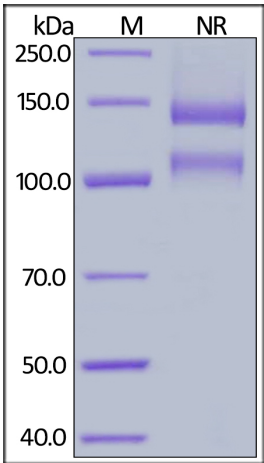
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



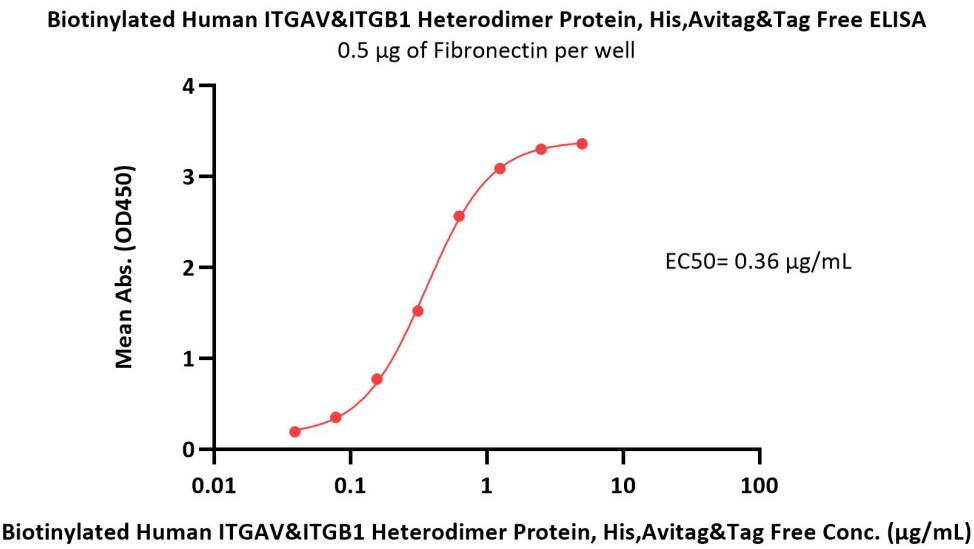
Biotinylated Human ITGAV&ITGB1 Heterodimer Protein, His,Avitag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Biotinylated Human Integrin alpha V beta 1 (ITGAV&ITGB1) Heterodimer Protein, His,Avitag™&Tag Free

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Immobilized Fibronectin at 5 µg/mL (100 µL/well) can bind Biotinylated Human ITGAV&ITGB1 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT1-H82W6) with a linear range of 0.039-0.625 µg/mL (QC tested).

Background

Integrin alpha-5/beta-1 is a receptor for ibrinogen. Integrin alpha-1/beta-1, alpha-2/beta-1, alpha-6/beta-1 and alpha-7/beta-1 are receptors for lamimin. Integrin alpha-4/beta-1 is a receptor for VCAM1. It recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-9/beta-1 is a receptor for VCAM1, cytotactin and osteopontin. It recognizes the sequence A-E-I-D-G-I-E-L in cytotactin. Integrin alpha-V/beta-1 is also a receptor for vitronectin. Beta-1 integrins recognize the sequence R-G-D in a wide array of ligands. Isoform 2 interferes with isoform 1 resulting in a dominant negative effect on cell adhesion and migration (in vitro). When associated with alpha-7/beta-1 integrin, regulates cell adhesion and laminin matrix deposition.

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