Biotinylated Human Integrin alpha 8 beta 1 (ITGA8&ITGB1) Heterodimer Protein, His,Avitag™&Tag Free

Catalog # IT1-H82Wb

Synonym

Integrin alpha 8 beta 1,ITGA8&ITGB1

Source

Biotinylated Human ITGA8&ITGB1 Heterodimer Protein, His,Avitag&Tag Free(IT1-H82Wb) is expressed from human 293 cells (HEK293). It contains AA Phe 39 - Leu 1012 (ITGA8) & Gln 21 - Asp 728 (ITGB1) (Accession # P53708-1 (ITGA8) & P05556-1 (ITGB1)).
Predicted N-terminus: Phe 39 (ITGA8) & Gln 21 (ITGB1)

Molecular Characterization

Biotinylated Human ITGA8&ITGB1 Heterodimer Protein, His,Avitag&Tag Free, produced by co-expression of ITGA8 and ITGB1, has a calculated MW of 116.4 kDa (ITGA8) and 83.7 kDa (ITGB1). Subunit ITGA8 is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and an Avi tag and subunit ITGB1 contains no tag but a basic tail at the C-terminus. The non-reducing (NR) protein migrates as 140-150 kDa (ITGA8) 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.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% 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

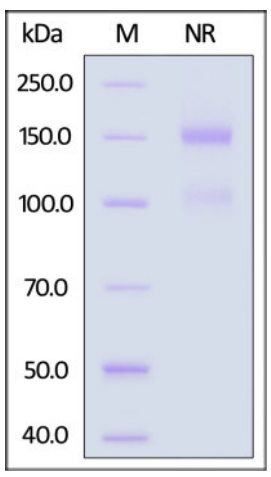
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

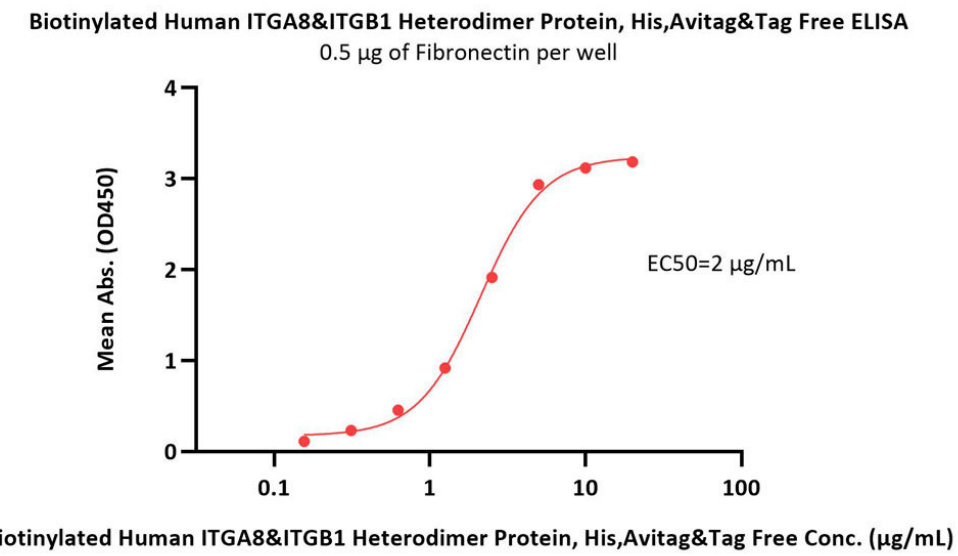
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human ITGA8&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 90%.

Bioactivity-ELISA



Immobilized Fibronectin at 5 μg/mL (100 μL/well) can bind Biotinylated Human ITGA8 & ITGB1 Heterodimer Protein (Cat. No. IT1-H82Wb) with a linear range of 0.078-2.5 μg/mL (QC tested).

Background

Human Integrin alpha 8 beta 1 Heterodimer Protein consists of ITGA8 and ITGB1. The integrin alpha 8 subunit, isolated by low stringency hybridization, is a novel integrin subunit that associates with beta 1. The recently identified alpha 8 integrin subunit associates with beta 1 and is predominantly expressed in smooth muscle and other contractile cells in adult tissues, and in mesenchymal and neural cells during development. In addition, Integrin alpha 8 beta 1 is a receptor for fibronectin and can promote attachment, cell spreading, and neurite outgrowth on fibronectin.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.