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

Catalog # IT3-H52E3

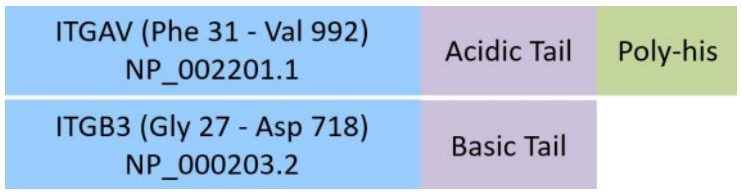
Synonym

Integrin alpha V beta 3,ITGAV&ITGB3

Source

Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free(IT3-H52E3) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Gly 27 - Asp 718 (ITGB3) (Accession # NP_002201.1 (ITGAV) & NP_000203.2 (ITGB3)).
Predicted N-terminus: Phe 31 (ITGAV) & Gly 27 (ITGB3)

Molecular Characterization



Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGAV and ITGB3, has a calculated MW of 112.9 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 subunit ITGB3 contains no tag but a basic tail at the C-terminus. The non-reducing (NR) protein migrates as 120-145 kDa (ITGAV) and 85-95 kDa (ITGB3) respectively due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

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

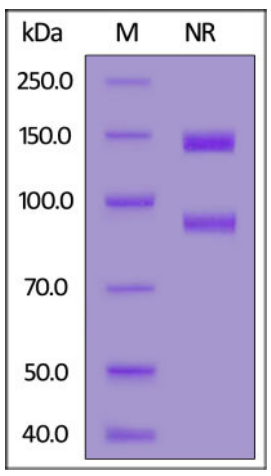
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

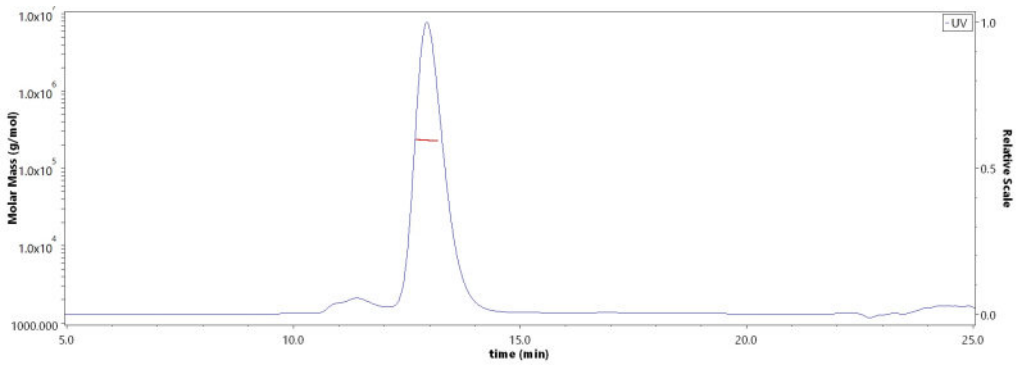
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



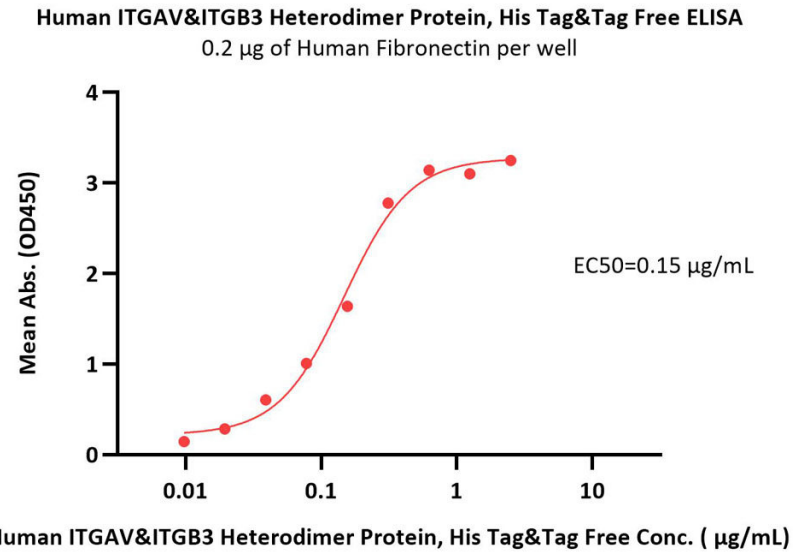
Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

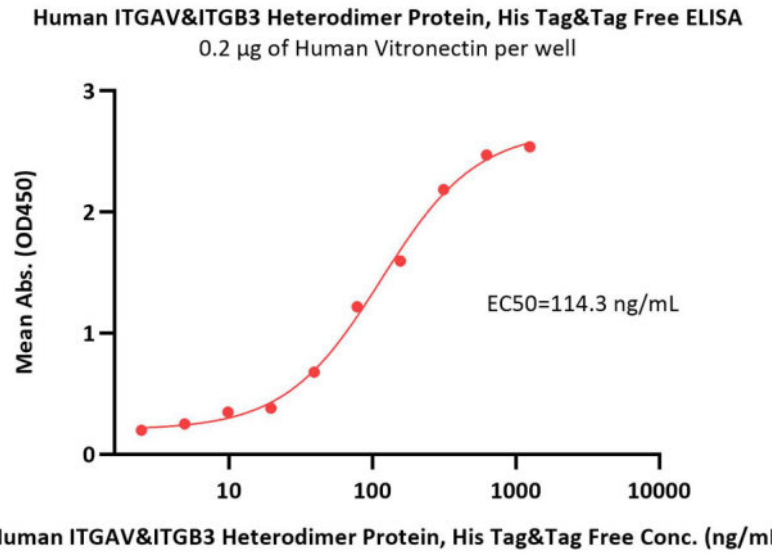


The purity of Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT3-H52E3) is more than 85% and the molecular weight of this protein is around 207-253 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

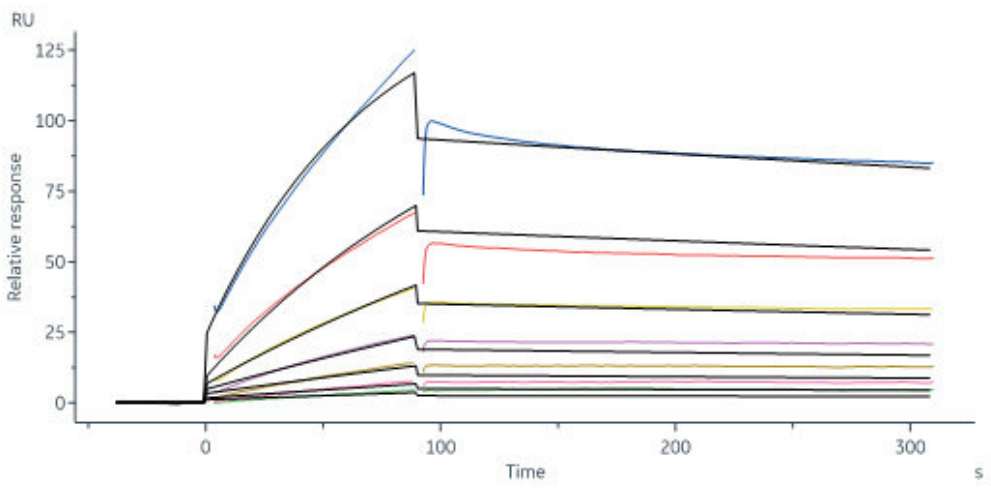


Immobilized Human Fibronectin at 2 μg/mL (100 μL/well) can bind Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT3-H52E3) with a linear range of 0.01-0.3 μg/mL (QC tested).



Immobilized Human Vitronectin at 2 μg/mL (100 μL/well) can bind Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT3-H52E3) with a linear range of 10-156 ng/mL (Routinely tested).

Bioactivity-SPR



Human EDIL3, Fc Tag (Cat. No. ED3-H5259) immobilized on CM5 Chip can bind Human ITGAV&ITGB3 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT3-H52E3) with an affinity constant of 38.9 nM as determined in a SPR assay (Biacore 8K) (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