



Synonym

Integrin alpha V beta 3, ITGAV&ITGB3

Source

Rat ITGAV&ITGB3 Heterodimer, His Tag&Tag Free (IT3-R52E2) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Pro 988 (ITGAV) & Ser 27 - Asp 717 (ITGB3) (Accession # [NP_001385621.1](#) (ITGAV) & [Q8R2H2](#) (ITGB3)).

Predicted N-terminus: Phe 31 | Ser 27

Molecular Characterization

Rat ITGAV&ITGB3 Heterodimer, His Tag&Tag Free, produced by co-expression of ITGAV and ITGB3, has a calculated MW of 112.3 kDa (ITGAV) & 81.6 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 protein migrates as 125-145 kDa (ITGAV) and 70-85 kDa (ITGB3) when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μ g by the LAL method / rFC 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.

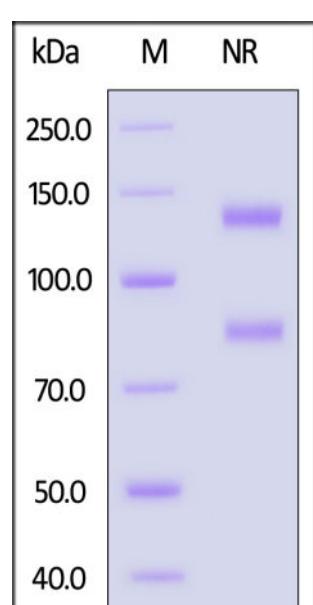
This product is stable after storage at:

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

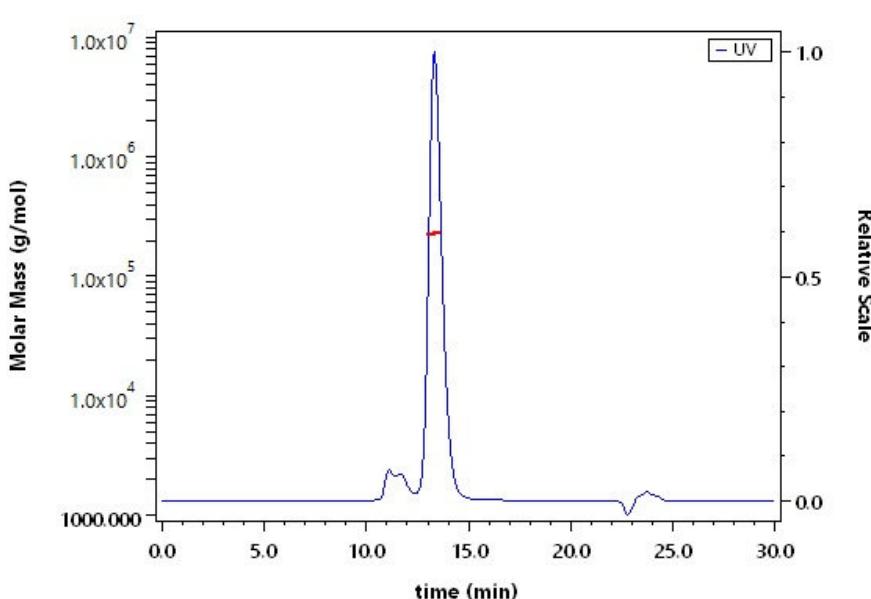
ACRO Quality Management System

- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



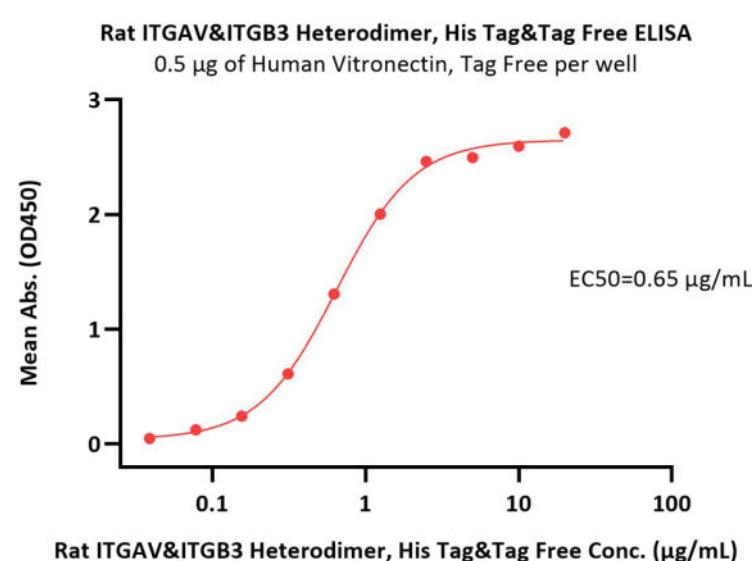
SEC-MALS



Rat ITGAV&ITGB3 Heterodimer, 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%.

The purity of Rat ITGAV&ITGB3 Heterodimer, His Tag&Tag Free (Cat. No. IT3-R52E2) is more than 85% and the molecular weight of this protein is around 210-240 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Human Vitronectin at 5 µg/mL (100 µL/well) can bind Rat ITGAV&ITGB3 Heterodimer, His Tag&Tag Free (Cat. No. IT3-R52E2) with a linear range of 0.039-1.25 µg/mL (QC tested).

Background

Integrin alpha-V/beta-3 (ITGAV:ITGB3) is a receptor for cytотactин, 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.

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