



Synonym

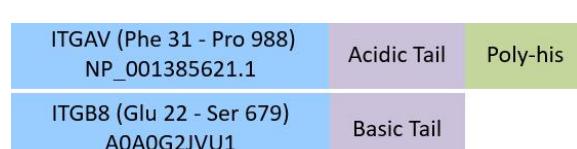
Integrin alpha V beta 8, ITGAV&ITGB8

Source

Rat Integrin alpha V beta 8 (ITGAV&ITGB8) Heterodimer, His Tag&Tag Free (IT8-R52E1) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Pro 988 & Gly 22 - Ser 679 (Accession # [NP_001385621.1](#) & [A0A0G2JVU1](#)).

Predicted N-terminus: Phe 31 | Gly 22

Molecular Characterization



Other Tags and Version Biotin & Other Labeled Version

Rat ITGAV&ITGB8 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGAV and ITGB8, has a calculated MW of 113 kDa (ITGAV) & 77 kDa (ITGB8). Subunit ITGAV is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and subunit ITGB8 contains no tag but a basic tail at the C-terminus. The protein migrates as 125-145 kDa (ITGAV) and 75-85 kDa (ITGB8) 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.

>90% as determined by SEC-MALS.

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.

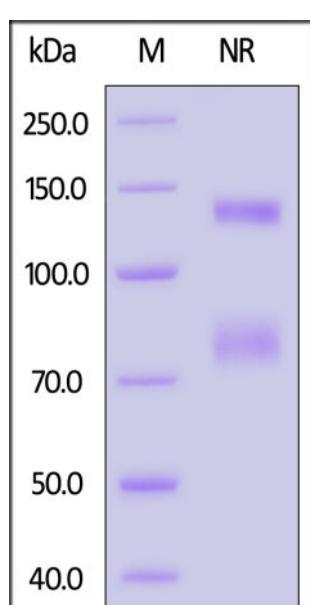
This product is stable after storage at:

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

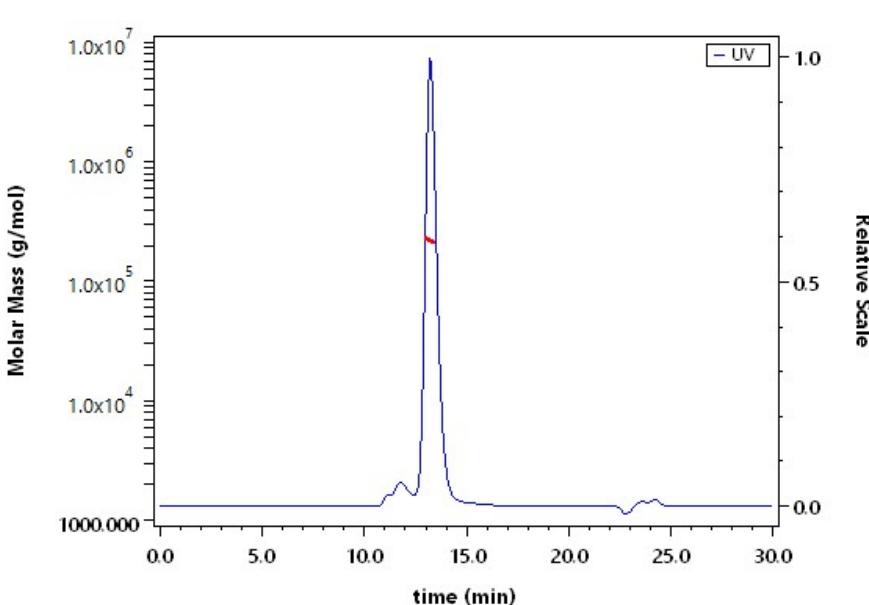
ACRO Quality Management System

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

SDS-PAGE



SEC-MALS

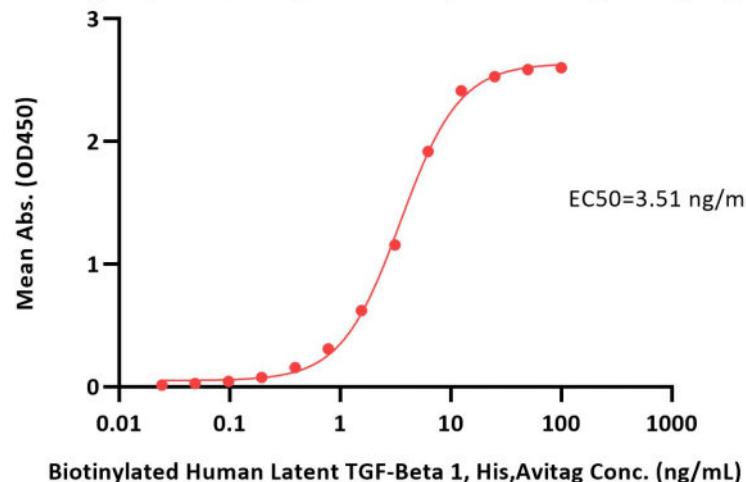


Rat Integrin alpha V beta 8 (ITGAV&ITGB8) Heterodimer, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

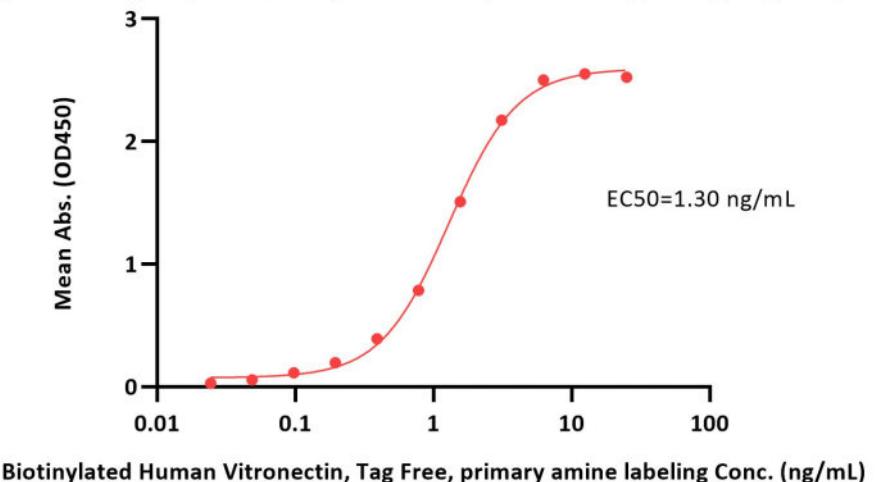
The purity of Rat Integrin alpha V beta 8 (ITGAV&ITGB8) Heterodimer, His Tag&Tag Free (Cat. No. IT8-R52E1) is more than 90% and the molecular weight of this protein is around 200-230 kDa verified by SEC-MALS.

Bioactivity-ELISA

Rat Integrin alpha V beta 8 (ITGAV&ITGB8) Heterodimer, His Tag&Tag Free ELISA
0.5 µg of Rat Integrin alpha V beta 8 (ITGAV&ITGB8) Heterodimer, His Tag&Tag Free per well



Rat Integrin alpha V beta 8 (ITGAV&ITGB8) Heterodimer, His Tag&Tag Free ELISA
0.5 µg of Rat Integrin alpha V beta 8 (ITGAV&ITGB8) Heterodimer, His Tag&Tag Free per well



Immobilized Rat Integrin alpha V beta 8 (ITGAV&ITGB8) Heterodimer, His Tag&Tag Free (Cat. No. IT8-R52E1) at 5 µg/mL (100 µL/well) can bind Biotinylated Human Latent TGF-Beta 1, His, Avitag (Cat. No. TG1-H82Qb) with a Biotinylated Human Vitronectin with a linear range of 0.1-3 ng/mL (Routinely tested).

Immobilized Rat Integrin alpha V beta 8 (ITGAV&ITGB8) Heterodimer, His Tag&Tag Free (Cat. No. IT8-R52E1) at 5 µg/mL (100 µL/well) can bind Biotinylated Human Vitronectin with a linear range of 0.1-3 ng/mL (Routinely tested).

Background

Integrin alpha V beta 8 (ITGAV & ITGB8 or ITGAVB8) is expressed in yolk sac, placenta, brain perivascular astrocytes, Schwann cells, renal glomerular mesangial cells and pulmonary epithelial cells. Unlike other alpha V integrins, ITGAVB8 does not appear to assume different activation states, and the cytoplasmic tail does not connect to the cytoskeleton. It binds ligands containing an RGD motif, including vitronectin, fibrin and the latency associated peptide (LAP) of the latent TGF-beta complex. High affinity binding of alpha V beta 8 to LAP allows proteolytic cleavage by MT1-MMP, which releases active TGF-beta. This mechanism differs from that of alpha V beta 6, the other alpha V integrin which can activate TGF-beta from latency through non-proteolytic mechanisms. Downstream effects of TGF-beta activation include control of cell growth and associated vascularization.

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