



Synonym

Integrin alpha V beta 5, ITGAV&ITGB5

Source

Rat ITGAV&ITGB5 Heterodimer, His Tag&Tag Free (IT5-R52E3) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Pro 988 (ITGAM) & Leu 25 - Asn 719 (ITGB5) (Accession # [NP_001385621.1](#) (ITGAM) & [NP_671480.2](#) (ITGB5)).

Predicted N-terminus: Phe 31 | Leu 25

Molecular Characterization

| | | |
|--|-------------|----------|
| ITGAV (Phe 31 - Pro 988) NP_001385621.1 | Acidic Tail | Poly-his |
| ITGB5 (Leu 25 - Asn 719) NP_671480.2 | Basic Tail | |

[Other Tags and Version](#) [Biotin & Other Labeled Version](#)

Rat ITGAV&ITGB5 Heterodimer, His Tag&Tag Free, produced by co-expression of ITGAV and ITGB5, 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 85-95 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

>90% 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.

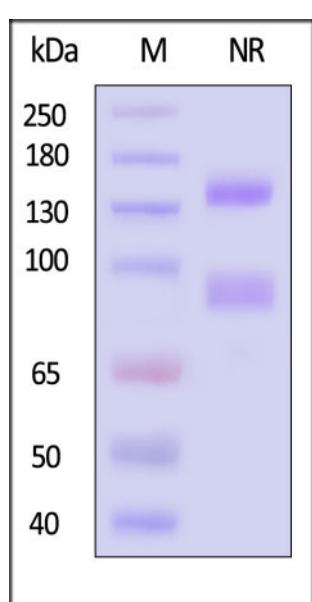
This product is stable after storage at:

- -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

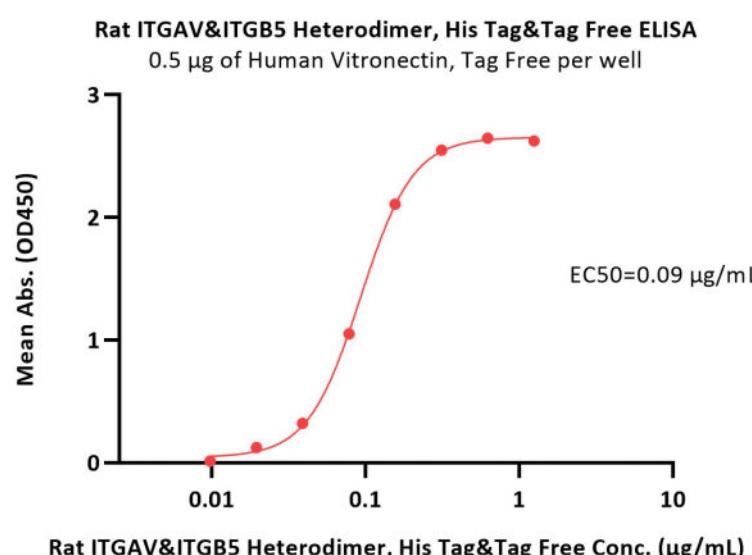
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE

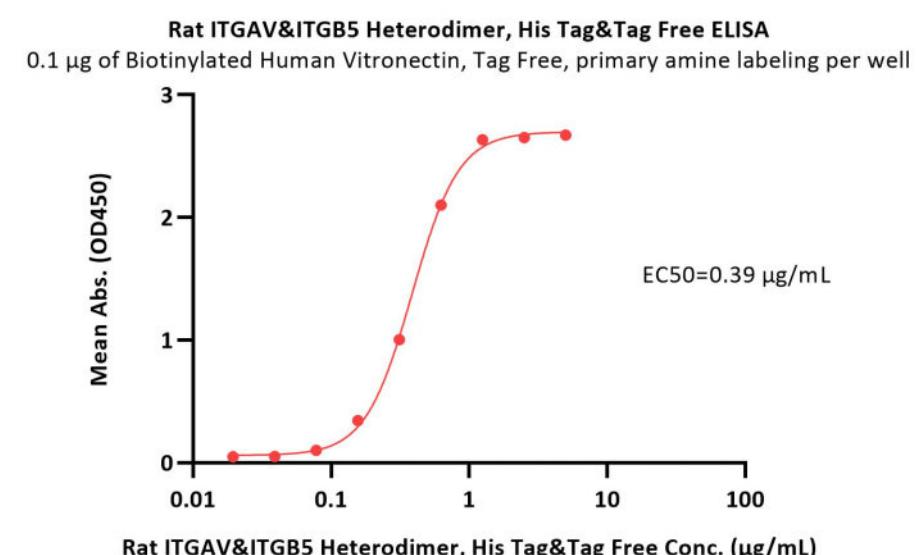


Rat ITGAV&ITGB5 Heterodimer, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA



Immobilized Human Vitronectin at 5 µg/mL (100 µL/well) can bind Rat ITGAV&ITGB5 Heterodimer, His Tag&Tag Free (Cat. No. IT5-R52E3) with a linear range of 0.02-0.156 µg/mL (QC tested).



Immobilized Biotinylated Human Vitronectin at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Rat ITGAV&ITGB5 Heterodimer, His Tag&Tag Free (Cat. No. IT5-R52E3) with a linear range of 0.078-0.625 µg/mL (Routinely tested).

Background

Integrin alpha V beta 5 (ITGAV & ITGB5) is expressed on a wide variety of cell types including keratinocytes, fibroblasts, adhesive monocytes, embryonic stem cells, and select endothelium and epithelium. ITGAV & ITGB5 binds ligands containing an RGD motif, notably vitronectin. Growth factors that increase PKC activity, such as VEGF or TGF alpha, promote ITGAV & ITGB5-mediated angiogenesis while alpha V beta 3, which may be expressed in the same cell, responds to FGF-basic and TNF alpha. An inhibitor of both down regulates tumor angiogenesis. During lung inflammation, up regulation of ITGAV & ITGB5 on myofibroblasts or infiltrating lymphocytes may contribute to fibrosis by freeing TGF beta from latency.

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