# Rat Integrin alpha V beta 5 (ITGAV&ITGB5) Heterodimer Protein, His Tag&Tag Free

Catalog # IT5-R52E3

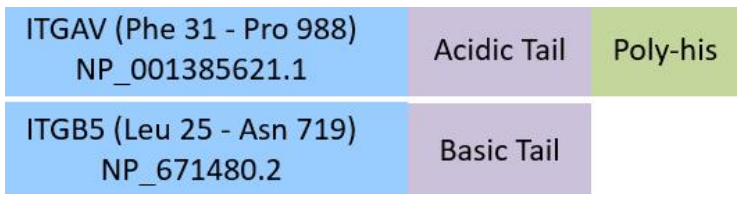
## Synonym

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




Rat ITGAV&ITGB5 Heterodimer, His Tag&Tag Free, 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.

## 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

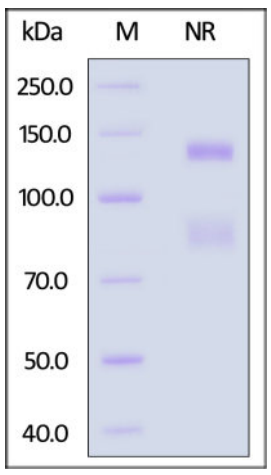
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

This product is stable after storage at:

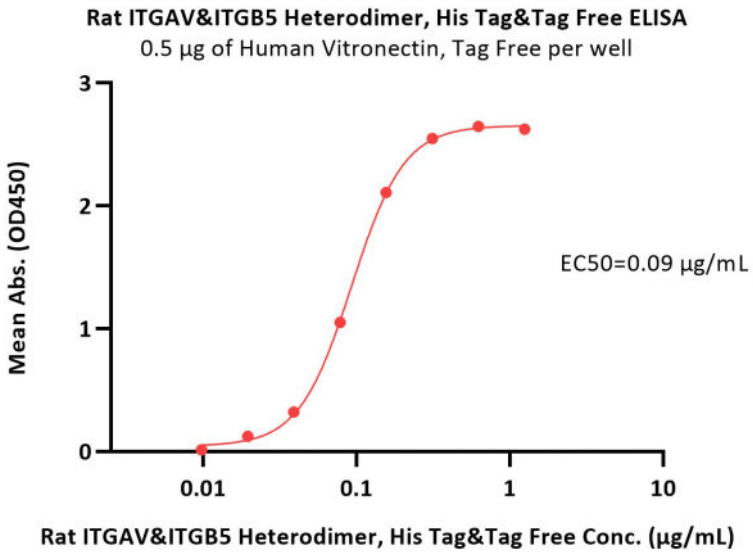
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE

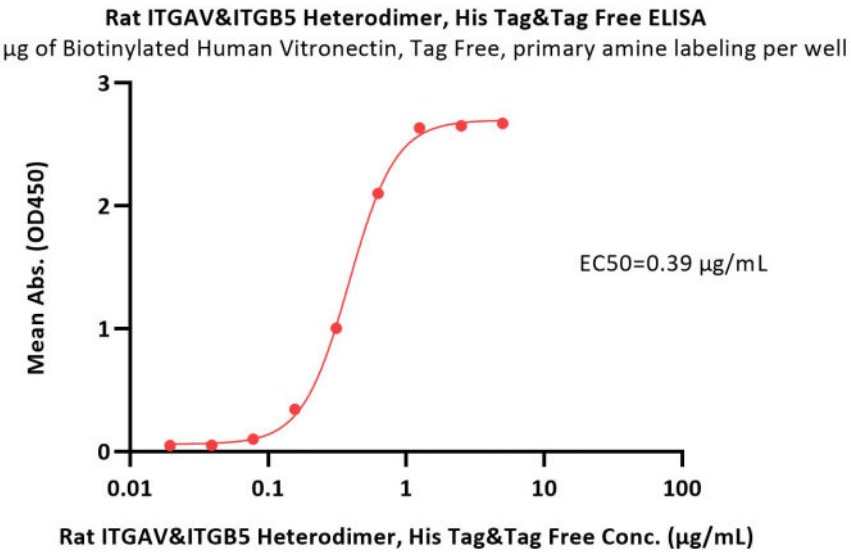



Rat ITGAV&ITGB5 Heterodimer, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

## 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.

## Clinical and Translational Updates

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