

**Synonym**

Integrin alpha V beta 5,ITGAV&amp;ITGB5

**Source**

Human ITGAV&ITGB5 Heterodimer Protein, His Tag&Tag Free(IT5-H52W5) is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Gly 24 - Asn 719 (ITGB5) (Accession # [NP\\_002201.1](#) (ITGAV) & [NP\\_002204.2](#) (ITGB5)).

Predicted N-terminus: Phe 31 (ITGAV) & Gly 24 (ITGB5)

**Molecular Characterization**

ITGAV (Phe 31 - Val 992) NP_002201.1	Acidic Tail	Poly-his
ITGB5 (Gly 24 - Asn 719) NP_002204.2	Basic Tail	

Human ITGAV&ITGB5 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGAV and ITGB5, has a calculated MW of 112.9 kDa (ITGAV) and 81.9 kDa (ITGB5). Subunit ITGAV is fused with polyhistidine tag at the C-terminus and followed by an acidic tail and subunit ITGB5 contains no tag but a basic tail at the C-terminus. The non-reducing (NR) protein migrates as 130-150 kDa (ITGAV) and 85-95 kDa (ITGB5) 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.*

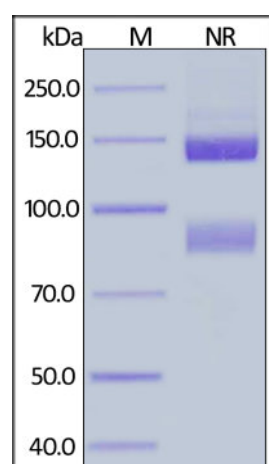
**Storage**

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

*Please avoid repeated freeze-thaw cycles.*

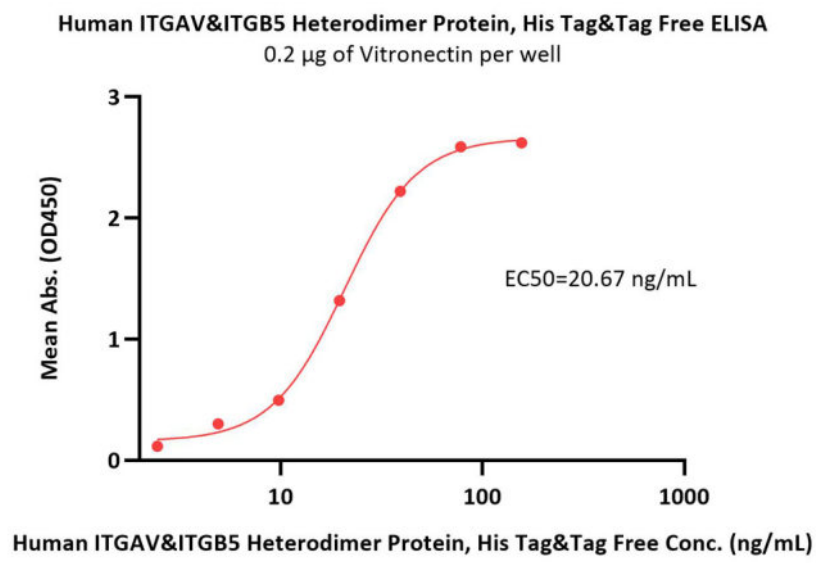
This product is stable after storage at:

- -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&ITGB5 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%.

**Bioactivity-ELISA**



Immobilized Vitronectin at 2 µg/mL (100 µL/well) can bind Human ITGAV&ITGB5 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT5-H52W5) with a linear range of 2-20 ng/mL (QC 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](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.