

# Human Integrin alpha V beta 1 (ITGAV&ITGB1) Heterodimer Protein

Cat. No. ITG-HM4V1

## Description

Source	Recombinant Human Integrin alpha V beta 1 (ITGAV&ITGB1) Heterodimer Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus of ITGAV.
	It contains Phe31-Val992 (ITGAV) acidic tail and Gln21-Asp728 (ITGB1) basic tail.
Accession	P06756-1(ITGAV)&P05556-1(ITGB1)
Molecular Weight	The protein has a predicted MW of 114 kDa (ITGAV) and 83.2 kDa (ITGB1). Due to glycosylation, the protein migrates to 130-160 kDa (ITGAV) and 100-120 kDa (ITGB1) based on Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

## Formulation and Storage

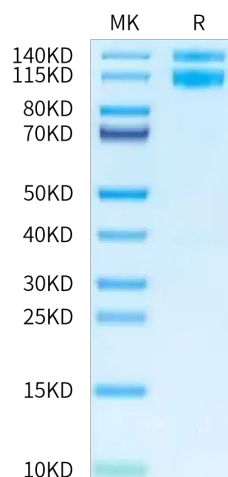
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Integrins are transmembrane heterodimeric receptors that contribute to diverse biological functions and play a conserved role in mediating cell adhesion to fixed extracellular ligands and in the maintenance of tissue integrity.  $\alpha V\beta 1$  is the major integrin on several different primary fibroblasts responsible for binding to TGF $\beta$ 1 LAP and for mediating activation of latent TGF $\beta$  by these cells.

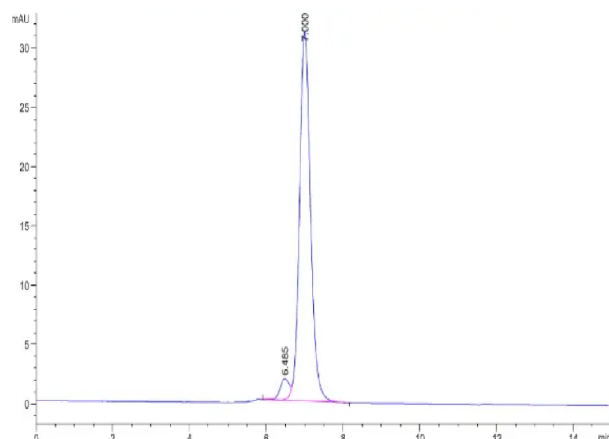
## Assay Data

### Bis-Tris PAGE



Human ITGAV&ITGB1 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



The purity of Human ITGAV&ITGB1 is greater than 95% as determined by SEC-HPLC.

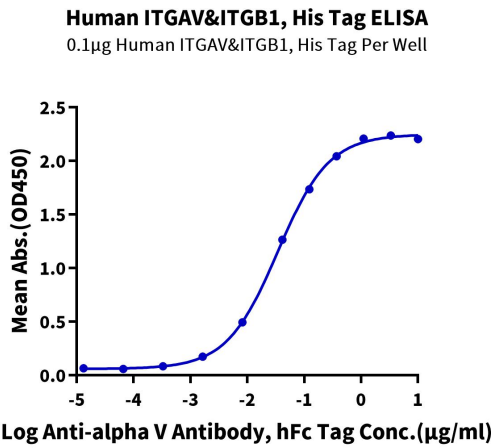
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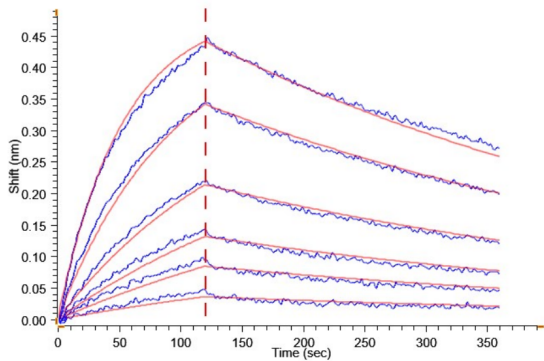
Assay Data

ELISA Data



Immobilized Human ITGAV&ITGB1, His Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Anti-alpha V Antibody, hFc Tag with the EC50 of 34.3ng/ml determined by ELISA (QC Test).

BLI Data



Loaded Anti-alpha V Ab., hFc Tag on ProA-Biosensor can bind Human ITGAV&ITGB1, His-Avi Tag with an affinity constant of 0.13 µM as determined in BLI assay (Gator® Prime).