

## Integrin alpha V beta 5 Protein, Human (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P700766
Synonyms:	$\alpha$ V $\beta$ 5; Integrin alpha V beta 5; beta5; alphaV; ITGAV&ITGB5; Integrin alpha V $\beta$ 5; $\beta$ 5
Species:	Human
Source:	HEK293
Accession:	P06756 (F31-V992)&P18084 (G24-N719)
Gene ID:	3685&3693
Molecular Weight:	85-140 kDa

### PROPERTIES

Biological Activity	Immobilized Anti-alpha V Antibody, hFc Tag at 1 $\mu$ g/ml (100 $\mu$ l/well) on the plate. Dose response curve for Biotinylated Human ITGAV&ITGB5, His Tag with the EC <sub>50</sub> of 0.29 $\mu$ g/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 $\mu$ m filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>The Integrin alpha V beta 5 protein, specifically the alpha-V (ITGAV) integrin subunit, serves as a versatile receptor for a range of ligands, including vitronectin, cytotactin, fibronectin, fibrinogen, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, and vWF. Recognizing the sequence R-G-D in various ligands, ITGAV:ITGB3 binds to fractalkine, acting as a coreceptor in CX3CR1-dependent fractalkine signaling. Additionally, it forms essential binding interactions with NRG1, FGF1, FGF2, IGF1, IGF2, IL1B, PLA2G2A, fibrillin-1 (FBN1), and CD40LG, contributing to diverse signaling pathways. Notably, the ITGAV:ITGB3 or ITGAV:ITGB6 complex acts as a receptor for transforming growth factor beta-1 (TGF-beta-1), mediating its release from regulatory Latency-associated peptide (LAP) and playing a crucial role in TGF-beta-1 activation. Furthermore, ITGAV:ITGB5 functions as a receptor for Adenovirus type C during microbial infection. The integrative and multifunctional nature of Integrin alpha V beta 5 underscores its pivotal role in mediating diverse cellular responses and signaling cascades.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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