

## Integrin alpha V beta 8 Protein, Human, Recombinant (His)

### General Information

Synonyms:	Integrin alpha V $\beta$ 8; Integrin $\alpha$ V $\beta$ 8
Protein Construction:	A DNA sequence encoding the extracellular domain (Met1-Val992) of human ITGAV (P06756) was fused with a C-terminal polyhistidine tag was expressed., constructed the plasmid 1; A DNA sequence encoding the extracellular domain (Met1-Arg684) of human ITGB8 (P26012) constructed the plasmid 2. The two plasmids were co-expressed and the human ITGAV&ITGB8 heterodimer was purified. Predicted N terminal: Phe31 & Glu43
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P06756&P26012
Molecular Weight:	187.95 kDa (predicted)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	$\geq 95$ % as determined by SDS-PAGE. $\geq 95$ % as determined by SEC-HPLC.
Endotoxin:	$< 1.0$ EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

Reconstitution:	Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.
Stability & Storage:	It is recommended to store recombinant proteins at $-20^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at $-80^{\circ}\text{C}$ . For reconstituted protein solutions, the solution can be stored at $-20^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>
Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Integrin alpha V beta 8 is a receptor for fibronectin. It recognizes the sequence R-G-D in its ligands. ITGAVB8 does not appear to assume different activation states; and the cytoplasmic tail does not connect to the cytoskeleton. It

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binds ligands containing an RGD motif; including vitronectin; fibrin and the latency associated peptide (LAP) of the latent TGF-beta complex. High affinity binding of alpha V beta 8 to LAP allows proteolytic cleavage by MT1-MMP; which releases active TGF-beta. This mechanism differs from that of alpha V beta 6; the other alpha V integrin which can activate TGF-beta from latency through non-proteolytic mechanisms.

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