

## Integrin alpha 5 beta 1 Protein, Human, Recombinant (His & Avi)

### General Information

Synonyms:	integrin, alpha 5 (fibronectin receptor, alpha polypeptide); Integrin $\alpha 5 \beta 1$ ; integrin, $\alpha 5$ (fibronectin receptor, $\alpha$ polypeptide); VLA5A; Integrin alpha 5 $\beta 1$ ; CD49e; VLA-5; FNRA
Protein Construction:	Phe42-Tyr995(ITGA5) acidic tail & Gln21-Asp728(ITGB1) basic tail
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P08648(ITGA5)&P05556-1(ITGB1)
Molecular Weight:	111.8 kDa (ITGA5) & 83.2 kDa (ITGB1) (Predicted); 100-140 kDa (Due to glycosylation)

### QC Testing

Biological Activity:	Immobilized Human ITGA5&ITGB1, His Tag at 1 $\mu\text{g/ml}$ (100 $\mu\text{l/well}$ ) on the plate. Dose response curve for Anti-ITGA5&ITGB1 Antibody, hFc Tag with the EC50 of 16.2 ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/ $\mu\text{g}$ of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100  $\mu\text{g/mL}$ . Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

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.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Integrin alpha 5/ beta 1, also known as VLA-5, is a widely expressed non-covalent heterodimer of a 160 kDa alpha 5 and a 130 kDa beta 1 Integrin subunit. Alpha 5/ beta 1 is up-regulated on tumor vasculature and promotes angiogenesis.

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