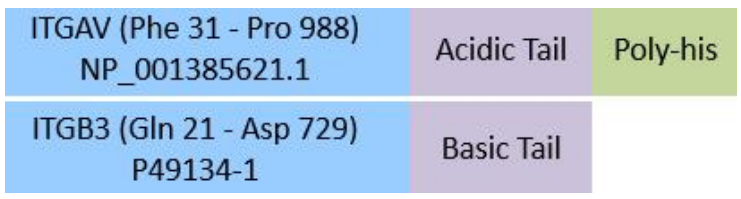
Synonym

Integrin alpha V beta 1,ITGAV&ITGB1

Source

Rat ITGAV&ITGB1 Heterodimer Protein, His Tag&Tag Free(IT1-R53W5) is expressed from CHO cells. It contains AA Phe 31 - Pro 988 & Gln 21 - Asp 729 (Accession # NP_001385621.1 & P49134-1).
Predicted N-terminus: Phe 31 & Gln 21

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 112.3 kDa & 83.7 kDa. The protein migrates as 120-160 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in 50mM Tris, 150mM 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

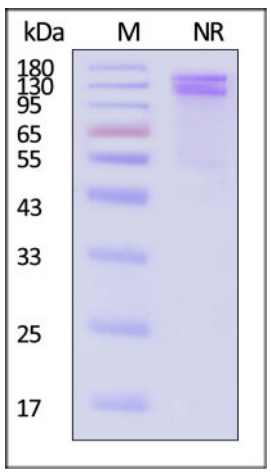
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



Rat ITGAV&ITGB1 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 90% (With Star Ribbon Pre-stained Protein Marker).

Background

Integrin alpha-5/beta-1 is a receptor for ibrinogen. Integrin alpha-1/beta-1, alpha-2/beta-1, alpha-6/beta-1 and alpha-7/beta-1 are receptors for lamimin. Integrin alpha-4/beta-1 is a receptor for VCAM1. It recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-9/beta-1 is a receptor for VCAM1, cytotactin and osteopontin. It recognizes the sequence A-E-I-D-G-I-E-L in cytotactin. Integrin alpha-V/beta-1 is also a receptor for vitronectin. Beta-1 integrins recognize the

sequence R-G-D in a wide array of ligands. Isoform 2 interferes with isoform 1 resulting in a dominant negative effect on cell adhesion and migration (in vitro). When associated with alpha-7/beta-1 integrin, regulates cell adhesion and laminin matrix deposition.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.