Human Integrin alpha 3 beta 1 (ITGA3&ITGB1) Heterodimer Protein, His Tag&Tag Free (MALS verified)

Catalog # IT1-H52Wc

Synonym

Integrin alpha 3 beta 1,ITGA3&ITGB1

Source

Human ITGA3&ITGB1 Heterodimer Protein, His Tag&Tag Free(IT1-H52Wc) is expressed from human 293 cells (HEK293). It contains AA Phe 33 - Glu 991 (ITGA3) & Gln 21 - Asp 728 (ITGB1) (Accession # P26006-2 (ITGA3) & P05556-1 (ITGB1)).
Predicted N-terminus: Phe 33 (ITGA3) & Gln 21 (ITGB1)

Molecular Characterization

Human ITGA3&ITGB1 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGA3 and ITGB1, has a calculated MW of 133.3 kDa (ITGA3) and 83.7 kDa (ITGB1). Subunit ITGA3 is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and subunit ITGB1 contains no tag but a basic tail at the C-terminus. The non-reducing (NR) protein migrates as 125-150 kDa (ITGA3) and 100-110 kDa (ITGB1) respectively due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

Formulation

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

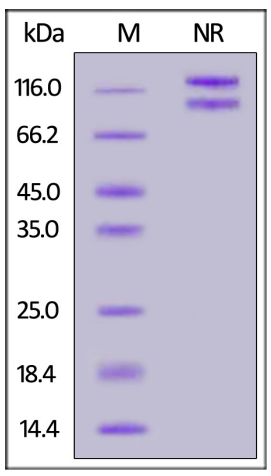
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

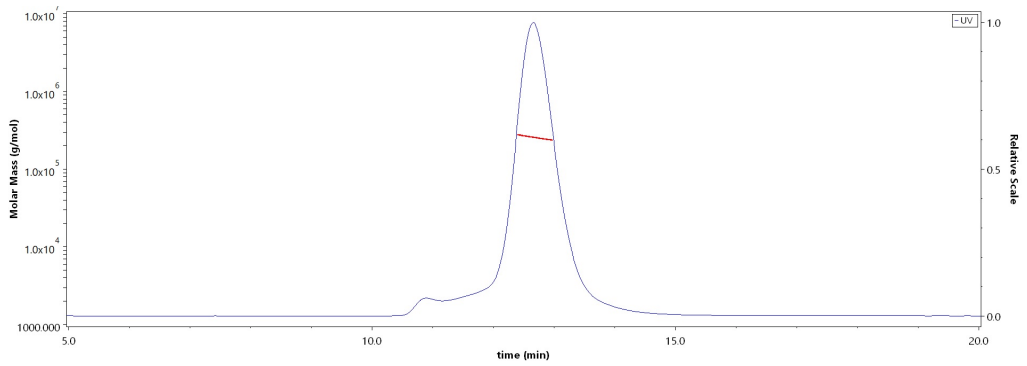
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human ITGA3&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%.

SEC-MALS

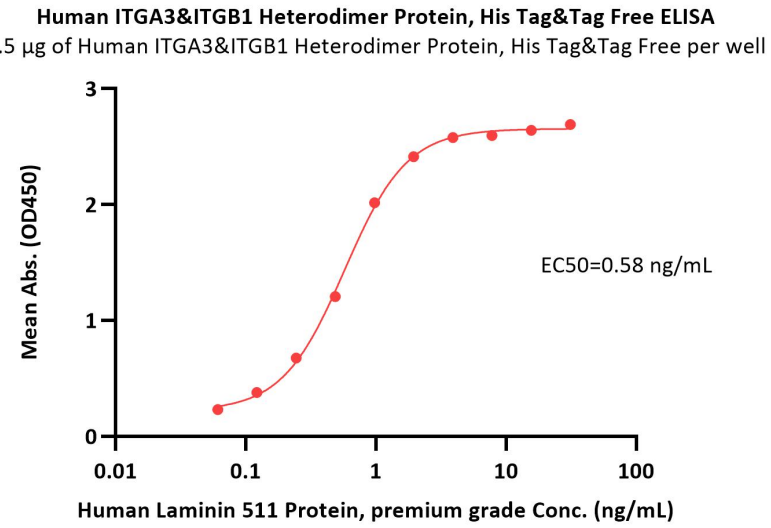


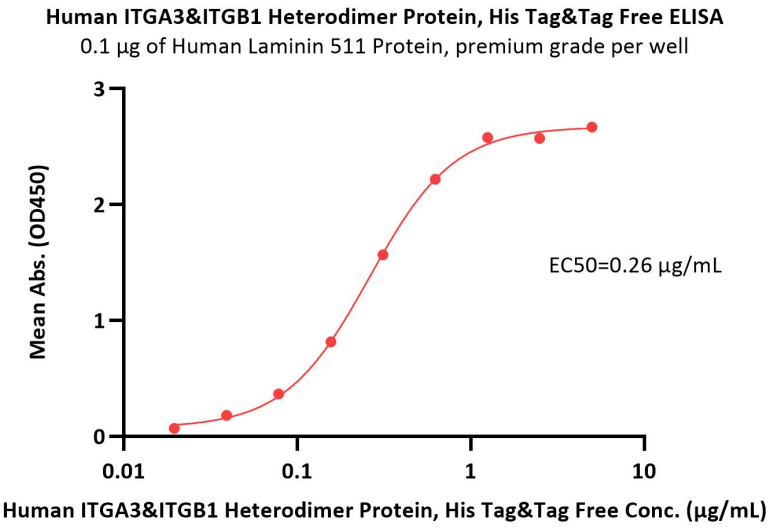
The purity of Human ITGA3&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52Wc) is more than 85% and the molecular weight of this protein is around 229-279 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

Human Integrin alpha 3 beta 1 (ITGA3&ITGB1) Heterodimer Protein, His Tag&Tag Free (MALS verified)

Catalog # IT1-H52Wc

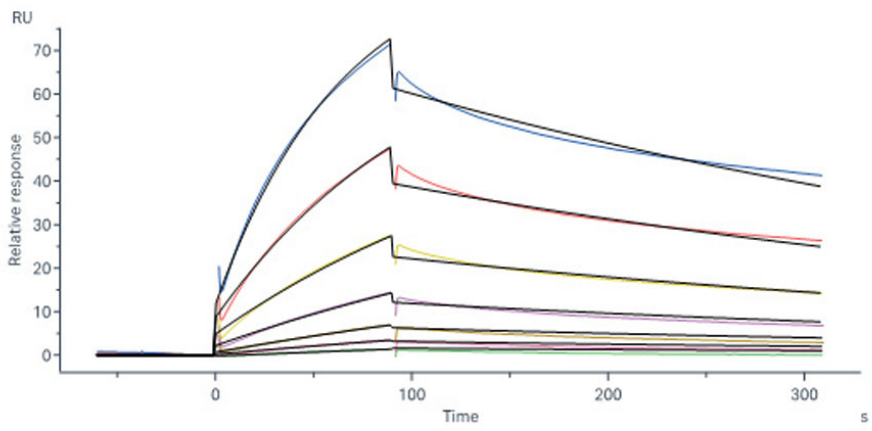




Immobilized Human ITGA3&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52Wc) at 5 μg/mL (100 μL/well) can bind Human Laminin 511 Protein, premium grade (Cat. No. LA8-H5283) with a linear range of 0.06-2 ng/mL (QC tested).

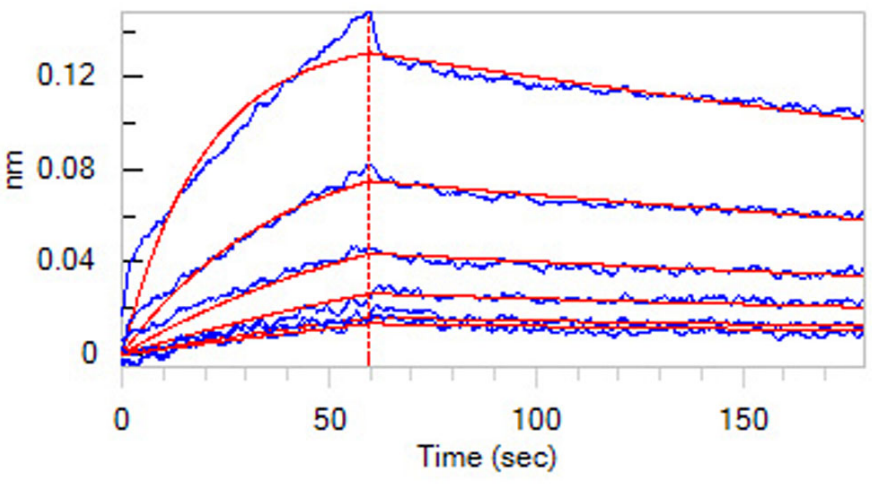
Immobilized Human Laminin 511 Protein, premium grade (Cat. No. LA8-H5283) at 1 μg/mL (100 μL/well) can bind Human ITGA3&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52Wc) with a linear range of 0.02-0.625 μg/mL (Routinely tested).

Bioactivity-SPR



Human Laminin 511 Protein, premium grade (Cat. No. LA8-H5283) captured on Protein A Chip can bind Human ITGA3&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52Wc) with an affinity constant of 30.8 nM as determined in SPR assay (Biacore 8K) (Routinely tested).

Bioactivity-BLI



Loaded Human Laminin 511 Protein, premium grade (Cat. No. LA8-H5283)
on Protein A Biosensor, can bind Human ITGA3&ITGB1 Heterodimer Protein,
His Tag&Tag Free (Cat. No. IT1-H52Wc) with an affinity constant of 8.6 nM
as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Integrin alpha-3/beta-1 is a receptor for fibronectin, laminin, collagen, epiligrin, thrombospondin and CSPG4. Integrin alpha-3/beta-1 provides a docking site for FAP (seprase) at invadopodia plasma membranes in a collagen-dependent manner and hence may participate in the adhesion, formation of invadopodia and matrix degradation processes, promoting cell invasion. Alpha-3/beta-1 may mediate with LGALS3 the stimulation by CSPG4 of endothelial cells migration.