Human Integrin alpha 6 beta 1 (ITGA6&ITGB1) Heterodimer Protein, His Tag&Tag Free

Catalog # IT1-H52W7



Synonym

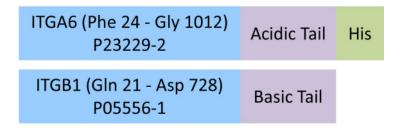
Integrin alpha 6 beta 1,ITGA6&ITGB1

Source

Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free(IT1-H52W7) is expressed from human 293 cells (HEK293). It contains AA Phe 24 - Gly 1012 (ITGA6) & Gln 21 - Asp 728 (ITGB1) (Accession # P23229-2 (ITGA6) & P05556-1 (ITGB1)).

Predicted N-terminus: Phe 24 (ITGA6) & Gln 21 (ITGB1)

Molecular Characterization



Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGA6 and ITGB1, has a calculated MW of 116.8 kDa (ITGA6) and 83.7 kDa (ITGB1). Subunit ITGA6 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 140-150 kDa (ITGA6) and 100-118 kDa (ITGB1) respectively 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 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

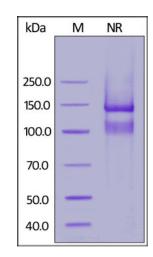
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



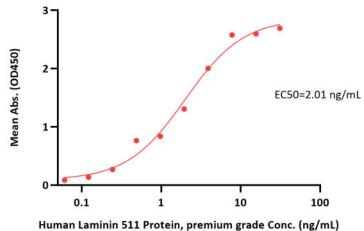
Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



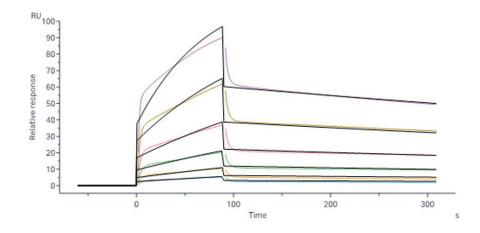


Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free ELISA 0.5 μ g of Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free per well



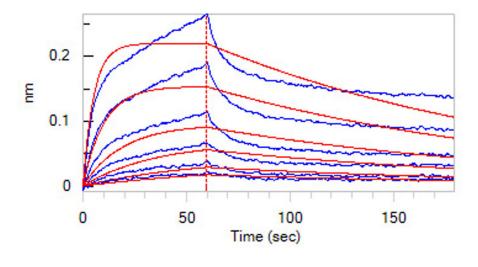
Immobilized Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52W7) at 5 μ g/mL (100 μ L/well) can bind Human Laminin 511 Protein, premium grade (Cat. No. LA8-H5283) with a linear range of 0.1-8 ng/mL (QC tested).

Bioactivity-SPR



Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52W7) captured on CM5 chip via anti-His antibody can bind Human Laminin 511 Protein, premium grade (Cat. No. LA8-H5283) with an affinity constant of 8.01 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Bioactivity-BLI





Human Integrin alpha 6 beta 1 (ITGA6&ITGB1) Heterodimer Protein, His Tag&Tag Free

Catalog # IT1-H52W7



Loaded Human Laminin 511 Protein, premium grade (Cat. No. LA8-H5283) on Protein A Biosensor, can bind Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52W7) with an affinity constant of 6.65 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Integrin alpha 6 beta 1, also called platelet glycoprotein GPIc-IIa, is a receptor for laminin on platelets. The ITGA6 protein product is the integrin alpha chain alpha 6. Integrins are integral cell-surface proteins composed of an alpha chain and a beta chain. A given chain may combine with multiple partners resulting in different integrins. For example, alpha 6 may combine with beta 4 in the integrin referred to as TSP180, or with beta 1 in the integrin VLA-6. Integrins are known to participate in cell adhesion as well as cell-surface mediated signalling. ITGA6 has been shown to interact with TSPAN4 and GIPC1.

Clinical and Translational Updates

