



## 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

ITGA6 (Phe 24 - Gly 1012) P23229-2	Acidic Tail	His
ITGB1 (Gln 21 - Asp 728) P05556-1	Basic Tail	

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

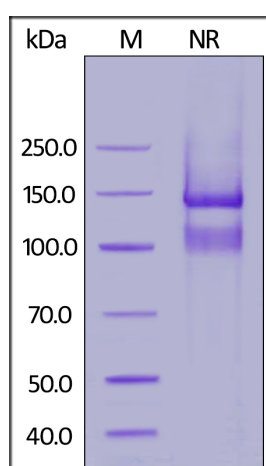
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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%.

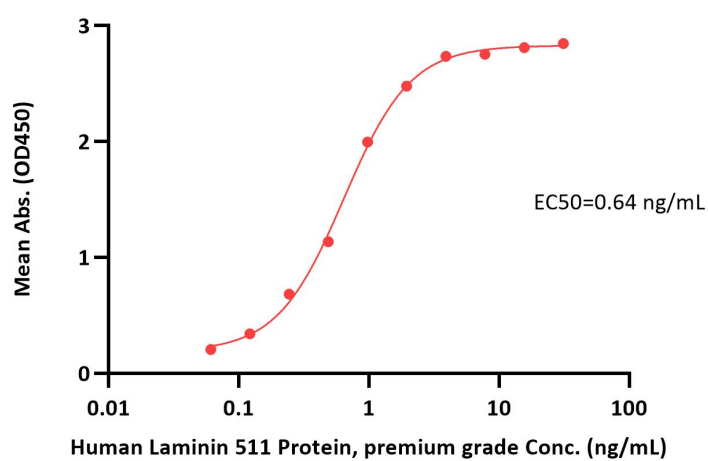
## Bioactivity-ELISA

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and more!

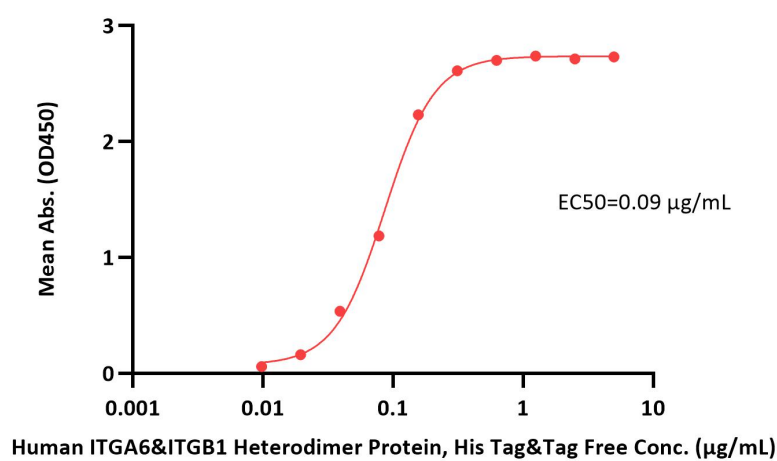




**Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free ELISA**  
0.5 µg of Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free per well



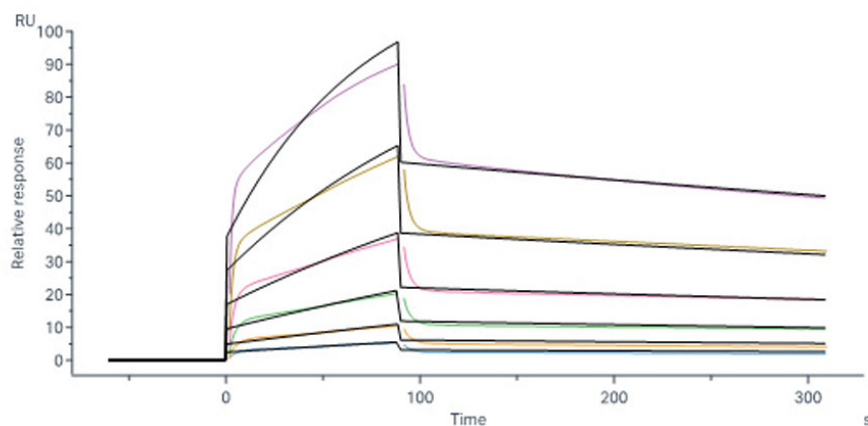
**Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free ELISA**  
0.1 µg of Human Laminin 511 Protein, premium grade per well



Immobilized Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52W7) 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).

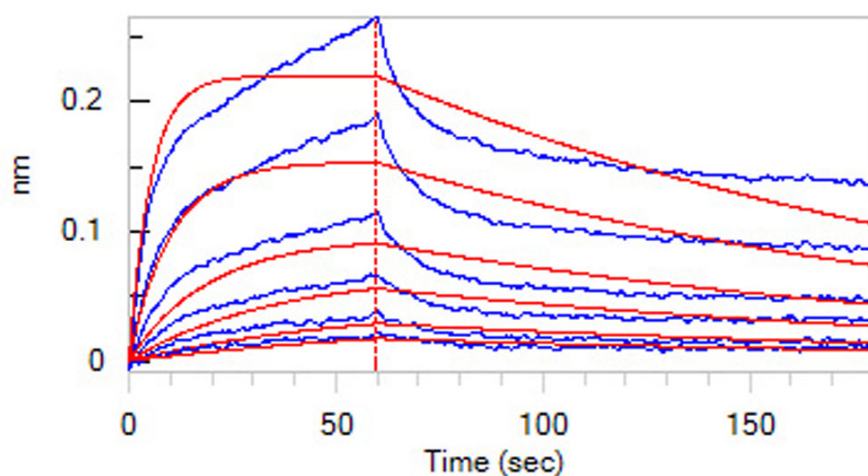
Immobilized Human Laminin 511 Protein, premium grade (Cat. No. LA8-H5283) at 1 µg/mL (100 µL/well) can bind Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52W7) with a linear range of 0.01-0.156 µg/mL (Routinely tested).

### 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



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

Catalog # IT1-H52W7



BIOSYSTEMS  
**Acro**

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 GPIIb-IIIa, 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

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