



## Synonym

Integrin alpha 1 beta 1,ITGA1&ITGB1

## Source

Human ITGA1&ITGB1 Heterodimer Protein, His Tag&Tag Free(IT1-H52Wb) is expressed from human 293 cells (HEK293). It contains AA Phe 29 - Pro 1141 (ITGA1) & Gln 21 - Asp 728 (ITGB1) (Accession # [P56199-1](#) (ITGA1) & [P05556-1](#) (ITGB1)).

Predicted N-terminus: Phe 29 (ITGA1) & Gln 21 (ITGB1)

## Molecular Characterization

ITGA1 (Phe 29 - Pro 1141) P56199-1	Acidic Tail	Poly-his
ITGB1 (Gln 21 - Asp 728) P05556-1	Basic Tail	

Human ITGA1&ITGB1 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGA1 and ITGB1, has a calculated MW of 130.0 kDa (ITGA1) and 83.7 kDa (ITGB1). Subunit ITGA1 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 protein migrates as 170-200 kDa (ITGA1) and 90-105 kDa (ITGB1) 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

>95% 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

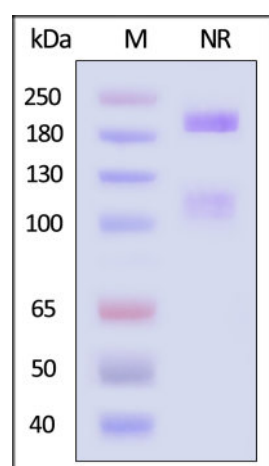
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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

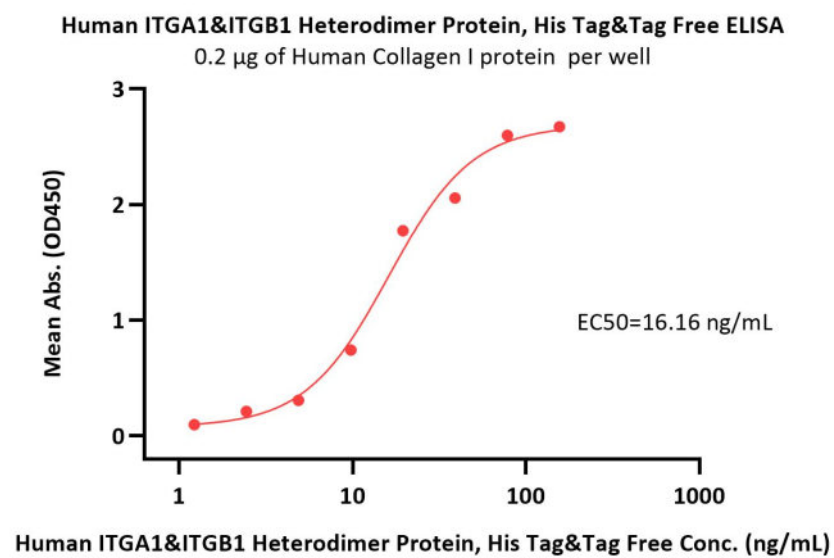


Human ITGA1&ITGB1 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA

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and more!





Immobilized Human Collagen I protein at 2 µg/mL (100 µL/well) can bind Human ITGA1&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52Wb) with a linear range of 1-20 ng/mL (QC tested).

## Background

Integrin alpha-1/beta-1 is a receptor for laminin and collagen. The Integrin alpha-1/beta-1 and Integrin alpha-2/beta-1 integrins provide critical support for vascular endothelial growth factor signaling, endothelial cell migration, and tumor angiogenesis. It recognizes the proline-hydroxylated sequence G-F-P-G-E-R in collagen. Involved in anchorage-dependent, negative regulation of EGF-stimulated cell growth.

## Clinical and Translational Updates

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