# Mouse Integrin alpha 1 beta 1 (ITGA1&ITGB1) Heterodimer Protein, His Tag&Tag Free

Catalog # IT1-M52W6



## **Synonym**

Integrin alpha 1 beta 1,ITGA1&ITGB1

#### Source

Mouse ITGA1&ITGB1 Heterodimer Protein, His Tag&Tag Free(IT1-M52W6) is expressed from human 293 cells (HEK293). It contains AA Phe 29 - Pro 1141 (ITGA1) & Gln 21 - Asp 728 (ITGB1) (Accession # Q3V3R4-1 (ITGA1) & P09055-1 (ITGB1)).

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

### **Molecular Characterization**

ITGA1 (Phe 29 - Pro 1141) Q3V3R4-1	Acidic Tail	Poly-his
ITGB1 (Gln 21 - Asp 728) P09055-1	Basic Tail	

Mouse 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 83.5 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 reducing (R) protein migrates as 150-200 kDa (ITGA1) and 90-130 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  $\mu m$  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

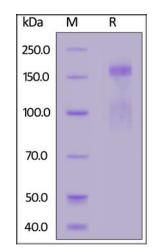
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



Mouse ITGA1&ITGB1 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

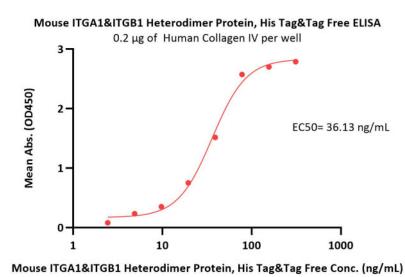
**Bioactivity-ELISA** 



# Mouse Integrin alpha 1 beta 1 (ITGA1&ITGB1) Heterodimer Protein, His Tag&Tag Free







Immobilized Human Collagen IV at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Mouse ITGA1&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-M52W6) with a linear range of 10-78 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**

