



**Synonym**

Integrin alpha 10 beta 1,ITGA10&ITGB1

**Source**

Mouse ITGA10&ITGB1 Heterodimer Protein, His Tag&Tag Free(IT1-M52W4) is expressed from human 293 cells (HEK293). It contains AA Phe 23 - Thr 1118 (ITGA10) & Gln 21 - Asp 728 (ITGB1) (Accession # [E9PXZ3-1](#) (ITGA10) & [P09055-1](#) (ITGB1)).

Predicted N-terminus: Phe 23 (ITGA10) & Gln 21 (ITGB1)

**Molecular Characterization**

ITGA10 (Phe 23 - Thr 1118) E9PXZ3-1	Acidic Tail	Poly-his
ITGB1 (Gln 21 - Asp 728) P09055-1	Basic Tail	

Mouse ITGA10&ITGB1 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGA10 and ITGB1, has a calculated MW of 126.6 kDa (ITGA10) and 83.5 kDa (ITGB1). Subunit ITGA10 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 150-170 kDa (ITGA10) and 100-130 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 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**

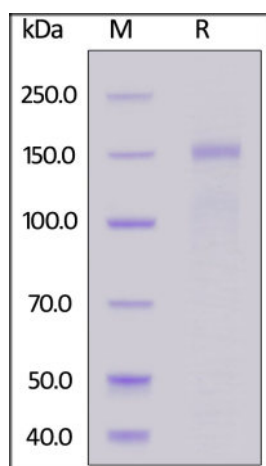
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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**

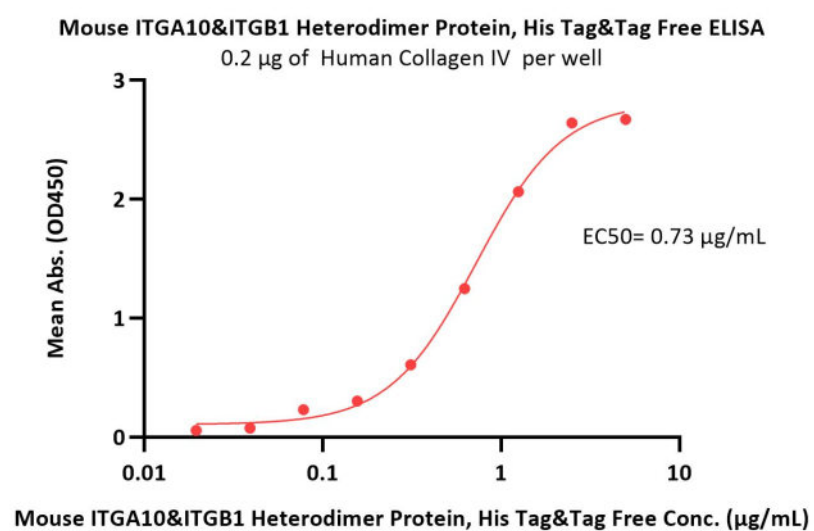


Mouse ITGA10&ITGB1 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity-ELISA**

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Immobilized Human Collagen IV at 2 µg/mL (100 µL/well) can bind Mouse ITGA10&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-M52W4) with a linear range of 0.039-1.25 µg/mL (QC tested).

## Background

Human integrin alpha(10)I domain as a recombinant protein to reveal its ligand binding specificity. In general, alpha(10)I did recognize collagen types I-VI and laminin-1 in a Mg(2+)-dependent manner, whereas its binding to tenascin was only slightly better than to albumin. Alpha 10 beta 1 is a known collagen-binding I domain integrin, in addition to  $\alpha 1\beta 1$ ,  $\alpha 2\beta 1$  and  $\alpha 11\beta 1$ . GROGER found in the N-terminal domain of collagens I and III, is only weakly recognised by  $\alpha 10\beta 1$ , an important collagen receptor on chondrocytes, contrasting with the other collagen-binding integrins.

## Clinical and Translational Updates

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