



Synonym

Integrin alpha 10 beta 1,ITGA10&ITGB1

Source

Human ITGA10&ITGB1 Heterodimer Protein, His Tag&Tag Free(IT1-H52Wa) is expressed from human 293 cells (HEK293). It contains AA Phe 23 - Ser 1122 (ITGA10) & Gln 21 - Asp 728 (ITGB1) (Accession # [O75578-1](#) (ITGA10) & [P05556-1](#) (ITGB1)).

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

Molecular Characterization

ITGA10 (Phe 23 - Ser 1122) O75578-1	Acidic Tail	Poly-his
ITGB1 (Gln 21 - Asp 728) P05556-1	Basic Tail	

Human 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 83.7 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 protein migrates as 130-170 kDa (ITGA10) and 105-125 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 / rFC 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

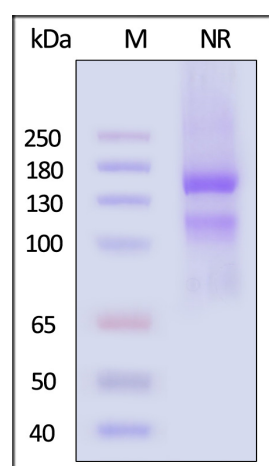
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

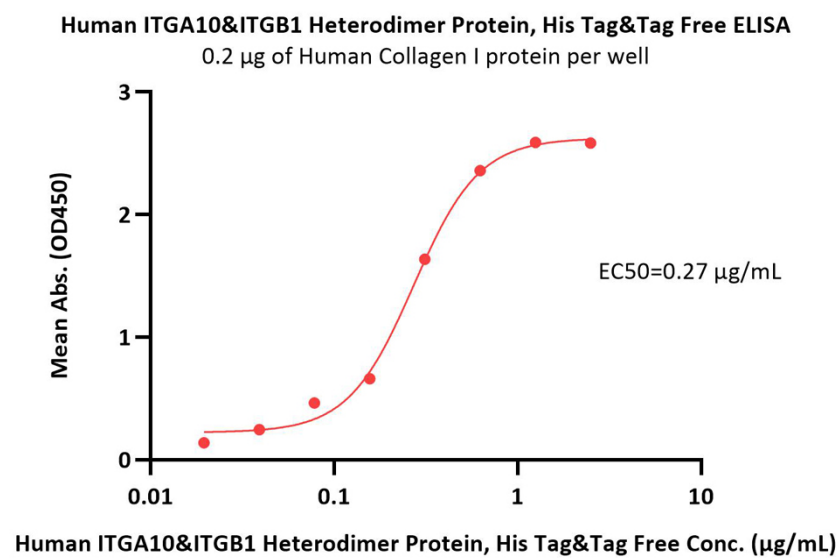


Human ITGA10&ITGB1 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

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Immobilized Human Collagen I protein at 2 µg/mL (100 µL/well) can bind Human ITGA10&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52Wa) with a linear range of 0.02-0.313 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.

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