

Mouse Integrin alpha 4 beta 1 (ITGA4&ITGB1) Heterodimer Protein, His Tag&Tag Free, low endotoxin (MALS verified)

Catalog # IT1-M52W7



Synonyms

Integrin alpha 4 beta 1, ITGA4&ITGB1

Source

Mouse ITGA4&ITGB1 Heterodimer Protein, His Tag&Tag Free (IT1-M52W7) is expressed from human 293 cells (HEK293). It contains AA Tyr 41 - Gln 977 (ITGA4) & Gln 21 - Asp 728 (ITGB1) (Accession # [Q00651](#) (ITGA4) & [P09055](#) (ITGB1)).

Predicted N-terminus: Tyr 41 (ITGA4) & Gln 21 (ITGB1)

Molecular Characterization

ITGA4 (Tyr 41 - Gln 977) Q00651	Acidic Tail	Poly-his
ITGB1 (Gln 21 - Asp 728) P09055	Basic Tail	

Mouse ITGA4&ITGB1 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGA4 and ITGB1, has a calculated MW of 110.7 kDa (ITGA4) & 83.5 kDa (ITGB1). Subunit ITGA4 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 70-75 kDa, 80-90 kDa, 115-135 kDa and 140-170 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a heterodimer.

Endotoxin

Less than 0.01 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, 0.2 M Arginine, 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.

Shipping and Storage

This product is shipped at ambient temperature.

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

Please avoid repeated freeze-thaw cycles.

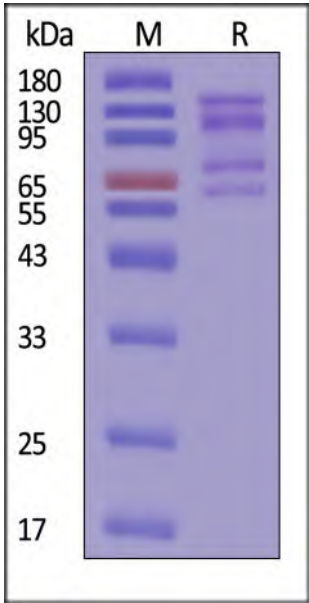
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

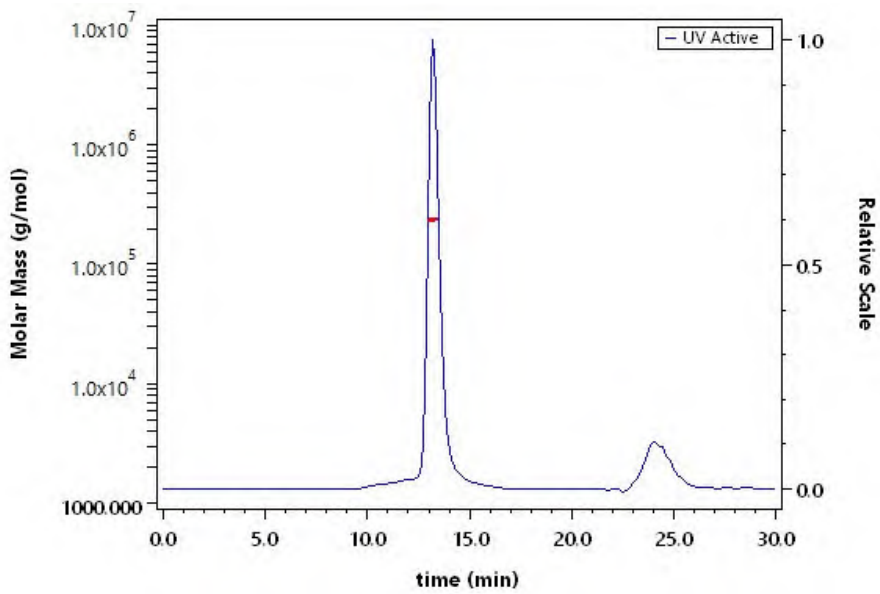
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



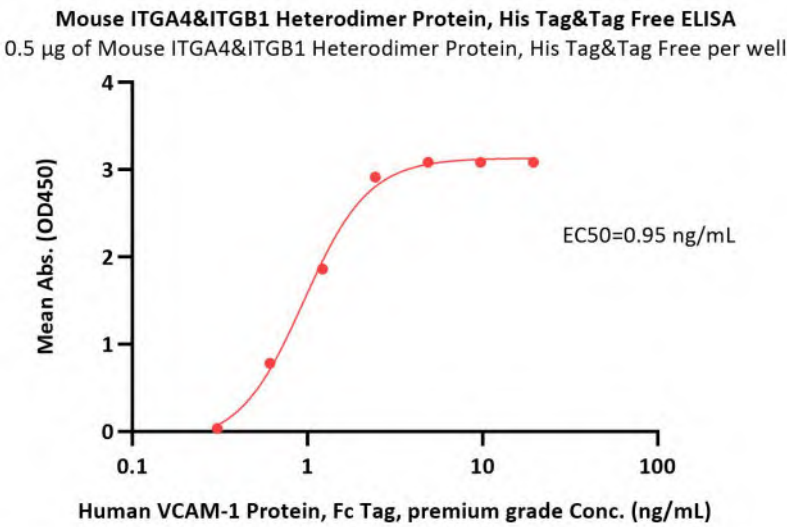
Mouse ITGA4&ITGB1 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS

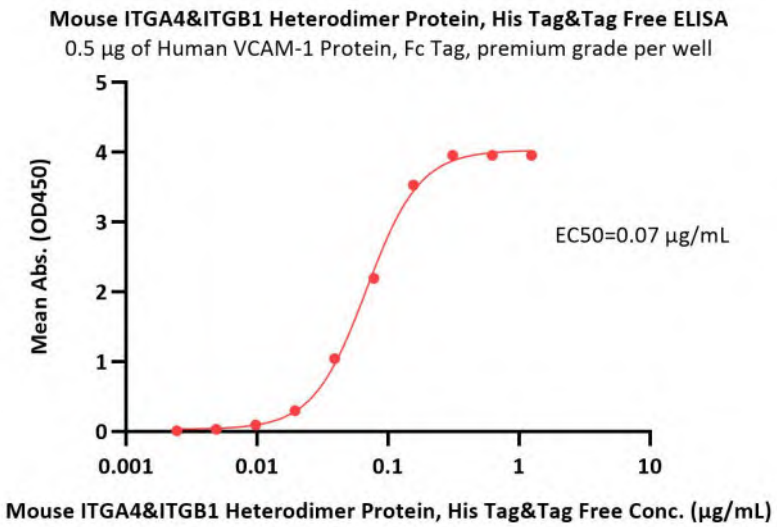


The purity of Mouse ITGA4&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-M52W7) is more than 90% and the molecular weight of this protein is around 200-250 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Mouse ITGA4&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-M52W7) at 5 µg/mL (100 µL/well) can bind Human VCAM-1 Protein, Fc Tag, premium grade (Cat. No. VC1-H5253) with a linear range of 0.3-2 ng/mL (QC tested).



Immobilized Human VCAM-1 Protein, Fc Tag, premium grade (Cat. No. VC1-H5253) at 5 µg/mL (100 µL/well) can bind Mouse ITGA4&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-M52W7) with a linear range of 0.005-0.156 µg/mL (Routinely tested).

Background

Integrins are transmembrane proteins that mediate interactions between adhesion molecules on adjacent cells and/or the extracellular matrix (ECM). Integrins have diverse roles in several biological processes including cell migration during development and wound healing, cell differentiation, and apoptosis. Their activities can also regulate the metastatic and invasive potential of tumor cells. Integrin alpha 4 beta 1 (Alpha-4/beta-1) is receptors for fibronectin. Integrin alpha-4/beta-1 is a receptor for VCAM1 and recognizes the sequence Q-I-D-S in VCAM1.



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