

Biotinylated Cynomolgus Integrin alpha 4 beta 7 (ITGA4&ITGB7) Heterodimer Protein,

His,Avitag™&Tag Free (MALS verified)

Catalog # IT7-C82W3



BIOSYSTEMS
Acro

Surprise Inside!

Synonym

Integrin alpha 4 beta 7, ITGA4&ITGB7

Source

Biotinylated Cynomolgus ITGA4&ITGB7 Heterodimer Protein, His,Avitag&Tag Free (IT7-C82W3) is expressed from human 293 cells (HEK293). It contains AA Tyr 34 - Gln 970 (ITGA4) & Glu 20 - His 723 (ITGB7) (Accession # [XP_005573683.2](#) (ITGA4) & [XP_005571028.2](#) (ITGB7)).

Predicted N-terminus: Tyr 34 (ITGA4) & Glu 20 (ITGB7)

Molecular Characterization

ITGA4 (Tyr 34 - Thr 970) P13612-1	Acidic Tail	Poly-his	Avi
ITGB7 (Glu 20 - His 723) P26010-1	Basic Tail		

Biotinylated Cynomolgus ITGA4&ITGB7 Heterodimer Protein, His,Avitag&Tag Free, produced by co-expression of ITGA4 and ITGB7, has a calculated MW of 112.9 kDa (ITGA4) & 81.6 kDa (ITGB7). Subunit ITGA4 is fused with an acidic tail at the N-terminus and followed by a polyhistidine tag and an Avi tag (Avitag™) and subunit ITGB7 contains no tag but a basic tail at the N-terminus. The protein migrates as 150-160 kDa and 100-120 kDa, 65-80 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.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 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.

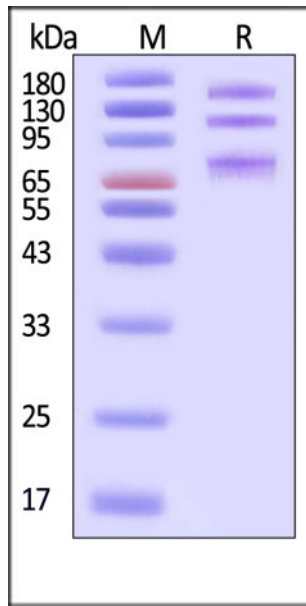
This product is stable after storage at:

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

ACRO Quality Management System

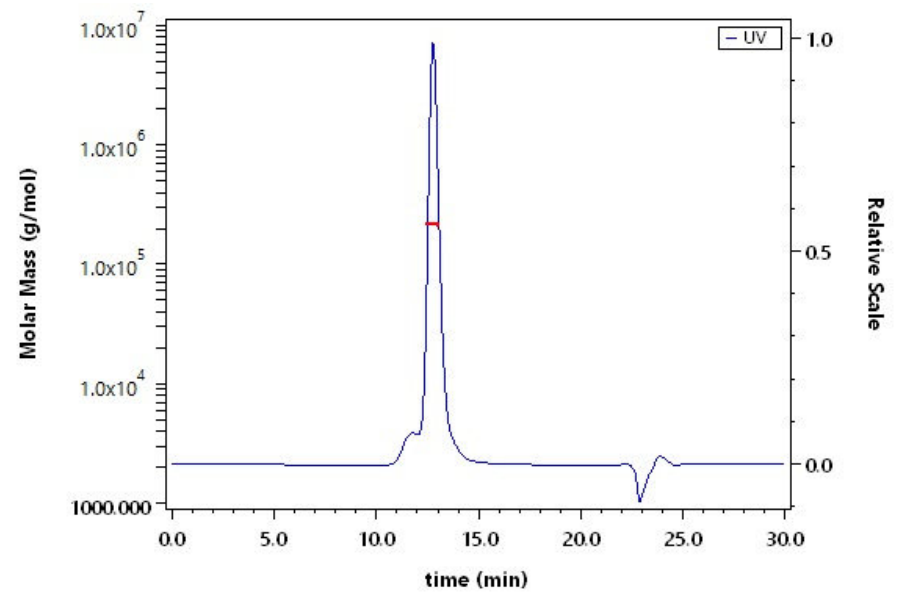
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



Biotinylated Cynomolgus ITGA4&ITGB7 Heterodimer Protein, His,Avitag&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](#)).

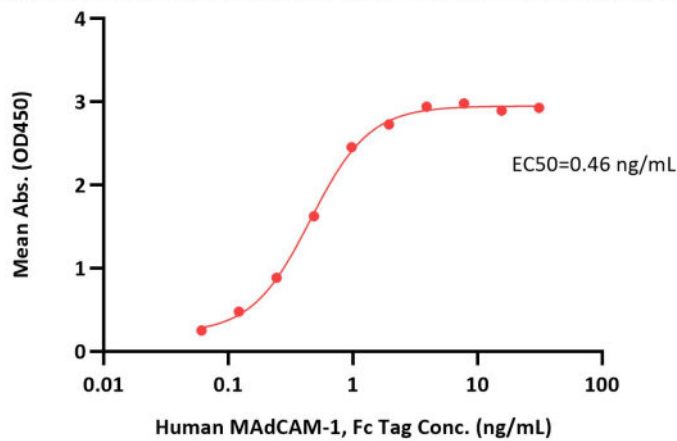
SEC-MALS



The purity of Biotinylated Cynomolgus ITGA4&ITGB7 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT7-C82W3) is more than 85% and the molecular weight of this protein is around 200-240 kDa verified by SEC-MALS.

Bioactivity-ELISA

Biotinylated Cynomolgus ITGA4&ITGB7 Heterodimer Protein, His,Avitag&Tag Free ELISA
0.1 µg of Biotinylated Cynomolgus ITGA4&ITGB7 Heterodimer Protein, His,Avitag&Tag Free per well



Immobilized Biotinylated Cynomolgus ITGA4&ITGB7 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT7-C82W3) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Human MAdCAM-1, Fc Tag (Cat. No. MAM-H5253) with a linear range of 0.06-1 ng/mL (QC tested).

Background

Integrin alpha 4 beta 7 is an integrin family adhesion receptor that shares subunits with alpha 4 beta 1 (VLA4) and the E-Cadherin receptor, alpha E beta 7. Integrin alpha 4 beta 7, which is critical for homing to intestinal mucosa, is induced during T cell activation in Peyer's patches or mesenteric lymph nodes. Its expression requires signals from local dendritic and stromal cells, including secreted retinoic acid. The HIV-1 envelope protein gp120 binds to the active form of Integrin alpha 4 beta 7, and this may or may not account for the concentration of HIV-1 virus in the gut-associated lymphoid tissue (GALT). Integrin alpha 4 beta 7 may also be involved in lymphocyte trafficking in acute intestinal graft vs. host disease (GVHD).

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