Cynomolgus Integrin alpha 8 beta 1 (ITGA8&ITGB1) Heterodimer Protein, His Tag&Tag Free (MALS verified)

Catalog # IT1-C52Wa

Synonym

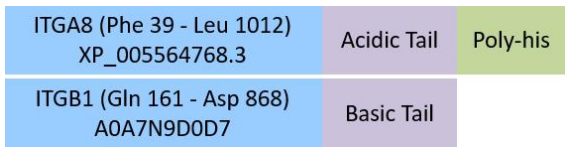
Integrin alpha 8 beta 1, ITGA8&ITGB1

Source

Cynomolgus ITGA8&ITGB1 Heterodimer Protein, His Tag&Tag Free (IT1-C52Wa) is expressed from human 293 cells (HEK293). It contains AA Phe 39 - Leu 1012 (ITGA8) & Gln 161 - Asp 868 (ITGB1) (Accession # XP_005564768.3 (ITGA8) & A0A7N9D0D7 (ITGB1)).

Predicted N-terminus: Phe 39 (ITGA8) & Gln 161 (ITGB1)

Molecular Characterization



Cynomolgus ITGA8&ITGB1 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGA8 and ITGB1, has a calculated MW of 114.6 kDa (ITGA8) & 83.6 kDa (ITGB1). Subunit ITGA8 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 130-150 kDa (ITGA8) and 100-125 kDa (ITGB1) 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 1.0 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in 50 mM HEPES, 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.

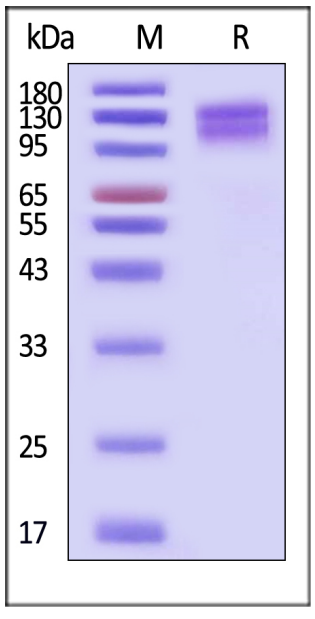
This product is stable after storage at:

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

ACRO Quality Management System

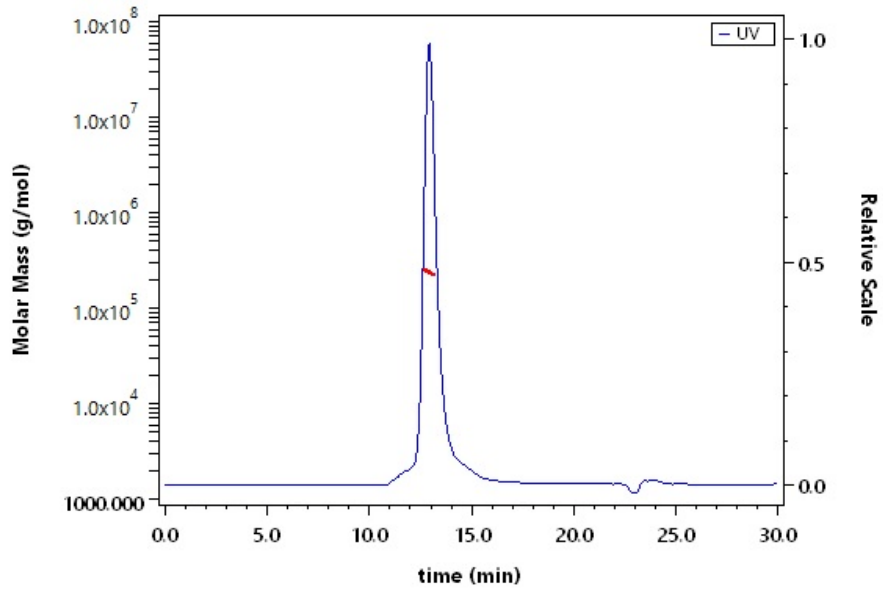
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



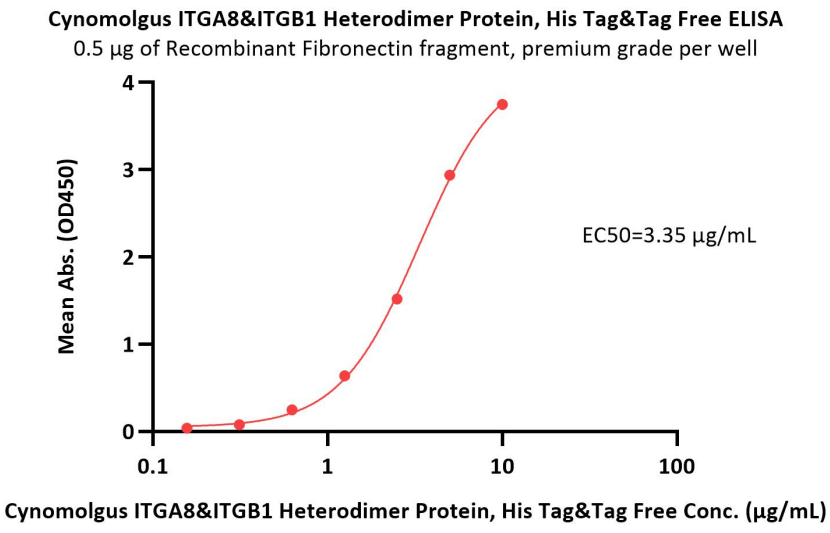
Cynomolgus ITGA8&ITGB1 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Cynomolgus ITGA8&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-C52Wa) is more than 90% and the molecular weight of this protein is around 210-245 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Recombinant Fibronectin fragment, premium grade (Cat. No. FIN-H5116) at 5 μg/mL (100 μL/well) can bind Cynomolgus ITGA8&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-C52Wa) with a linear range of 0.156-10 μg/mL (QC tested).

Background

Human Integrin alpha 8 beta 1 Heterodimer Protein consists of ITGA8 and ITGB1. The integrin alpha 8 subunit, isolated by low stringency hybridization, is a novel integrin subunit that associates with beta 1. The recently identified alpha 8 integrin subunit associates with beta 1 and is predominantly expressed in smooth muscle and other contractile cells in adult tissues, and in mesenchymal and neural cells during development. In addition, Integrin alpha 8 beta 1 is a receptor for fibronectin and can promote attachment, cell spreading, and neurite outgrowth on fibronectin.