Cynomolgus Integrin alpha 2 beta 1 (ITGA2&ITGB1) Heterodimer Protein, His Tag&Tag Free (MALS verified)

Catalog # IT1-C52W5

Synonym

Integrin alpha 2 beta 1,ITGA2 & ITGB1

Source

Cynomolgus ITGA2&ITGB1 Heterodimer Protein, His Tag&Tag Free(IT1-C52W5) is expressed from human 293 cells (HEK293). It contains AA Tyr 30 - Pro 1130 (ITGA2) & Gln 161 - Asp 868 (ITGB1) (Accession # G8F2Z5-1 (ITGA2) & A0A7N9D0D7-1 (ITGB1)).
Predicted N-terminus: Tyr 30 (ITGA2) & Gln 161 (ITGB1)

Molecular Characterization

Cynomolgus ITGA2&ITGB1 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGA2 and ITGB1, has a calculated MW of 127.5 kDa (ITGA2) & 83.6 kDa (ITGB1). Subunit ITGA2 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 160 kDa (ITGA2) and 110 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

>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, 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

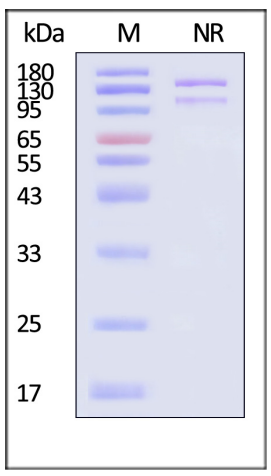
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

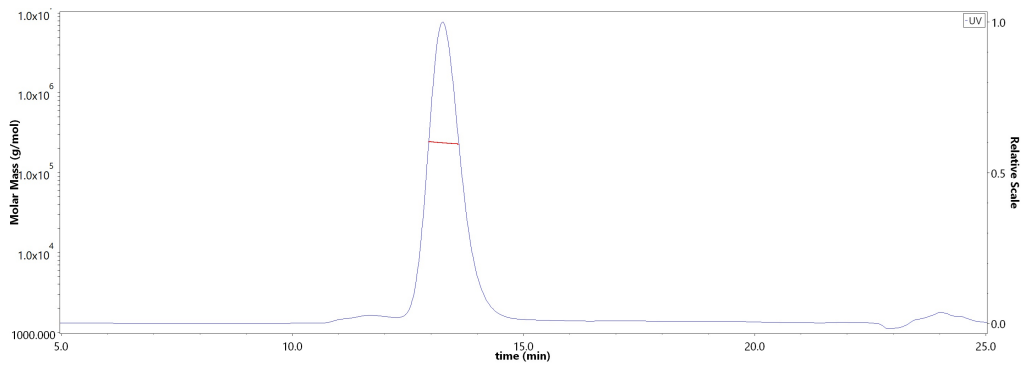
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Cynomolgus ITGA2&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 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

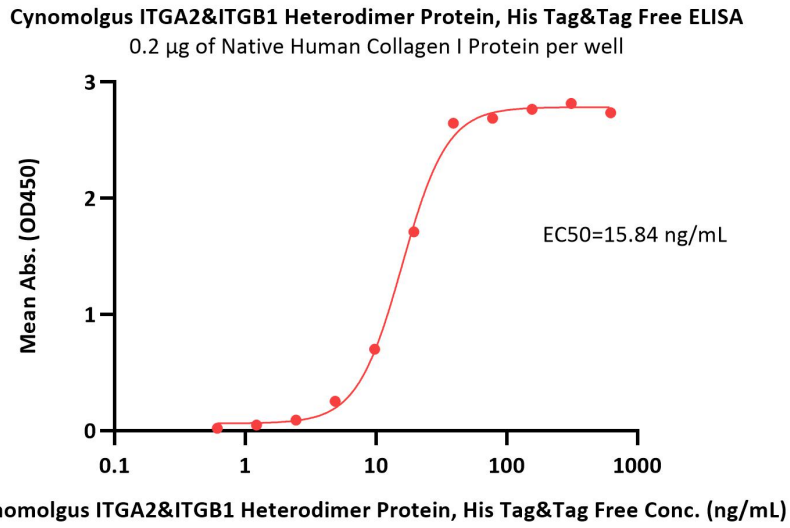


The purity of Cynomolgus ITGA2&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-C52W5) is more than 90% and the molecular weight of this protein is around 210-260 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

Cynomolgus Integrin alpha 2 beta 1 (ITGA2&ITGB1) Heterodimer Protein, His Tag&Tag Free (MALS verified)

Catalog # IT1-C52W5



Immobilized Native Human Collagen I Protein at 2 μg/mL (100 μL/well) can bind Cynomolgus ITGA2&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-C52W5) with a linear range of 0.06-39 ng/mL (QC tested).

Background

Integrin alpha 2 beta 1 is one of twelve integrin family adhesion receptors that share the beta 1 subunit. It is a receptor for laminin, collagen, collagen C-propeptides, fibronectin and E-cadherin. It recognizes the proline-hydroxylated sequence G-F-P-G-E-R in collagen. It is responsible for adhesion of platelets and other cells to collagens, modulation of collagen and collagenase gene expression, force generation and organization of newly synthesized extracellular matrix. Integrin ITGA2:ITGB1 acts as a receptor for Human rotavirus A and Human echoviruses 1 and 8. DGEA inhibited rotavirus binding to alpha2beta1 and infectivity. In a novel process, integrin-using viruses bind the alpha2 I domain of alpha2beta1 via DGE in VP4 and interact with alphaXbeta2 (via GPR) and alphaVbeta3 by using VP7 to facilitate cell entry and infection.