

Synonym

Integrin alpha E beta 7, ITGAE&ITGB7

Source

Cynomolgus ITGAE&ITGB7 Heterodimer Protein, His Tag&Tag Free (IT7-C52W3) is expressed from human 293 cells (HEK293). It contains AA Phe 38 - Ser 1142 & Glu 20 - His 723 (Accession # [XP\\_045231543.1](#) & [XP\\_005571028.2](#)).  
Predicted N-terminus: Phe 38 & Glu 20

Molecular Characterization

ITGAE (Phe 38 - Ser 1142) XP_045231543.1	Acidic Tail	His
ITGB7 (Glu 20 - His 723) XP_005571028.2	Basic Tail	

Other Tags and Version [Biotin & Other Labeled Version](#)

Cynomolgus ITGAE&ITGB7 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGAE and ITGB7, has a calculated MW of 128.3 kDa (ITGAE) and 81.6 kDa (ITGB7). Subunit ITGAE is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and subunit ITGB7 contains no tag but a basic tail at the C-terminus. The protein migrates as 140-160 kDa (ITGAE) and 95-110 kDa (ITGB7) 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.

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

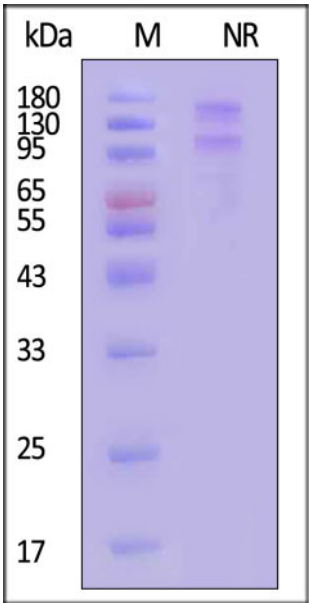
For long term storage, the product should be stored at lyophilized state at -20°C or lower.  
**Please avoid repeated freeze-thaw cycles.**  
This product is stable after storage at:

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

ACRO Quality Management System

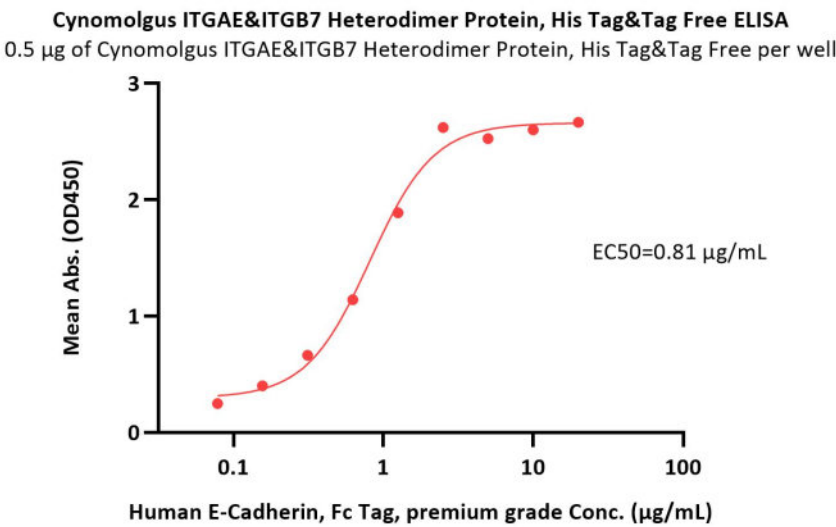
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



Cynomolgus ITGAE&ITGB7 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](#)).

## Bioactivity-ELISA



Immobilized Cynomolgus ITGAE&ITGB7 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT7-C52W3) at 5 µg/mL (100 µL/well) can bind Human E-Cadherin, Fc Tag, premium grade (Cat. No. ECD-H5250) with a linear range of 0.078-1.25 µg/mL (QC tested).

## Background

Integrin alpha E beta 7 consist of two major subunits: Integrin alpha E (ITGAE) also known as CD103 (cluster of differentiation 103) and Integrin beta-7 is an integrin protein that in humans is encoded by the ITGB7 gene. Integrin alpha E beta 7 (CD103) is expressed mainly by cells of the T lymphocyte lineage within mucosal tissues. This is a strikingly narrow pattern of expression compared with that of other integrins. Lymphocytes expressing alpha E beta 7 are abundant in the gut and comprise a major part of the total T cell complement of the body. The effectiveness of lung transplantation is marred by the relatively high incidence of rejection. The lung normally contains a large population of lymphocytes in contact with the airway epithelium, a proportion of which expresses the mucosal integrin, alpha(E)(CD103)beta(7). This integrin is not a homing receptor, but is thought to retain lymphocytes at the epithelial surface.

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