

# Non-biotinylated Human Integrin alpha 4 beta 7 (ITGA4&ITGB7) Heterodimer Protein, Ultra Low Endotoxin



Cat. No. ITG-HM447-UL

## Description

<b>Source</b>	Recombinant Human Integrin alpha 4 beta 7 (ITGA4&ITGB7) Heterodimer Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus of ITGA4. It contains Tyr34-Thr977(ITGA4) acidic tail and Glu20-His723(ITGB7) basic tail.
<b>Accession</b>	P13612-1(ITGA4)&P26010-1(ITGB7)
<b>Molecular Weight</b>	The protein has a predicted MW of 112.5 kDa (ITGA4) & 81.3 kDa (ITGB7). Due to glycosylation, the protein migrates to 70 kDa, 80 kDa, 100-120 kDa and 130-150 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.01 EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 85% as determined by HPLC

## Formulation and Storage

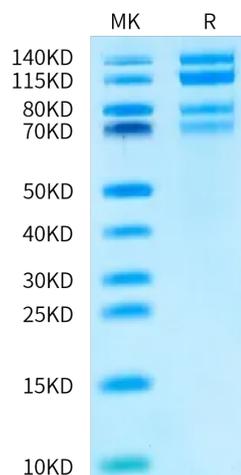
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Integrins alpha-4/beta-1 (VLA-4) and alpha-4/beta-7 are receptors for fibronectin. They recognize one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. They are also receptors for VCAM1. Integrin alpha-4/beta-1 recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-4/beta-7 is also a receptor for MADCAM1. It recognizes the sequence L-D-T in MADCAM1.

## Assay Data

### Bis-Tris PAGE



Human ITGA4&ITGB7 on Bis-Tris PAGE under reduced conditions. The purity is greater than 95%.

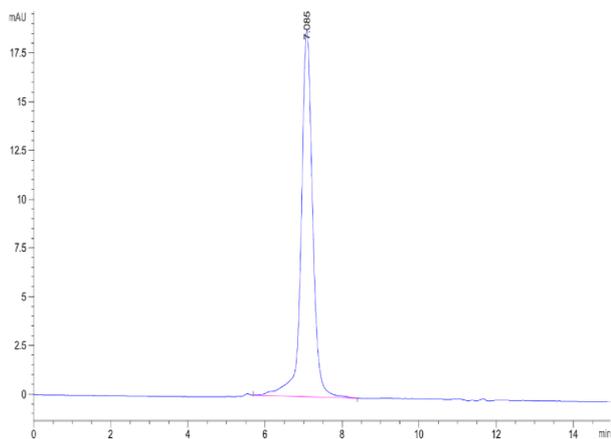
### SEC-HPLC

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Assay Data



The purity of Human ITGA4&ITGB7 is greater than 85% as determined by SEC-HPLC.

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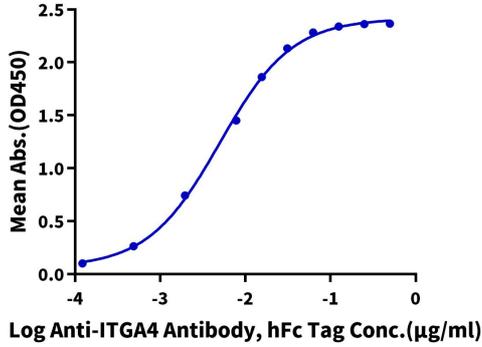
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## Assay Data

### ELISA Data

#### Human ITGA4&ITGB7, His Tag ELISA

0.1µg Human ITGA4&ITGB7, His Tag Per Well

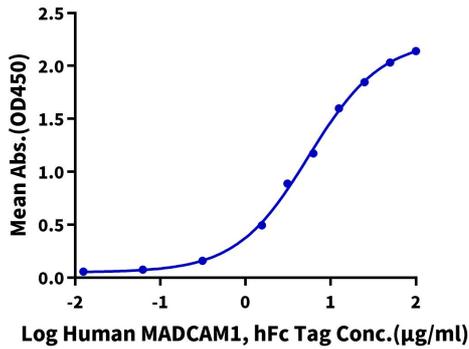


Immobilized Human ITGA4&ITGB7, His Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Anti-ITGA4 Antibody, hFc Tag with the EC50 of 5.0ng/ml determined by ELISA (QC Test).

### ELISA Data

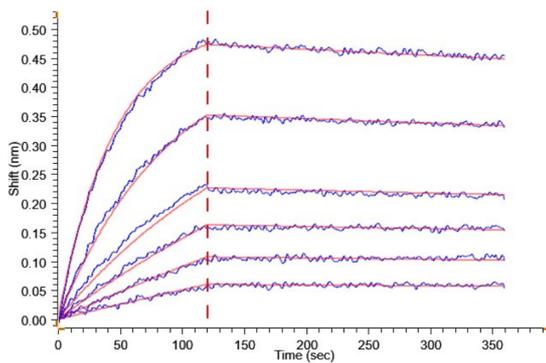
#### Human ITGA4&ITGB7, His Tag ELISA

0.5µg Human ITGA4&ITGB7, His Tag Per Well



Immobilized Human ITGA4&ITGB7, His Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Human MADCAM1, hFc Tag with the EC50 of 5.5µg/ml determined by ELISA.

### BLI Data



Loaded Anti-ITGA4 Antibody, hFc Tag on ProA-Biosensor can bind Human ITGA4&ITGB7, His-Avi Tag with an affinity constant of 1.04 nM as determined in BLI assay.