# Human Integrin alpha L beta 2 (ITGAL&ITGB2) Heterodimer Protein, His Tag&Tag Free





### **Synonym**

Integrin alpha L beta 2,ITGAL&ITGB2

#### Source

Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free(IT2-H53W3) is expressed from CHO cells. It contains AA Tyr 26 - Met 1089 (ITGAL) & Gln 23 - Asn 700 (ITGB2) (Accession # P20701-1 (ITGAL) & P05107-1 (ITGB2)). Predicted N-terminus: Tyr 26 (ITGAL) & Gln 23 (ITGB2)

### **Molecular Characterization**

ITGAL (Tyr 26 - Met 1089) P20701-1	Acidic Tail	Poly-his
ITGB2 (Gln 23 - Asn 700) P05107-1	Basic Tail	

Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGAL and ITGB2, has a calculated MW of 124.1 kDa (ITGAL) & 80.2 kDa (ITGB2). Subunit ITGAL is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and subunit ITGB2 contains no tag but a basic tail at the C-terminus. The protein migrates as 140-150 kDa (ITGAL) and 90-95 kDa (ITGB2) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

#### Endotoxin

Less than 1.0 EU per µg by the LAL method.

## **Purity**

>95% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from 0.22  $\mu m$  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

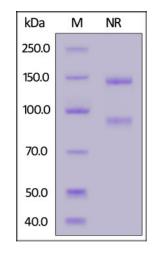
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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**



Human ITGAL&ITGB2 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 95%.

# **Bioactivity-ELISA**



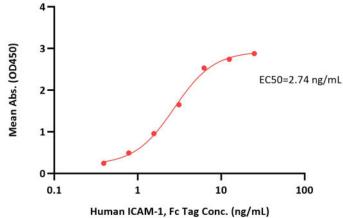
# Human Integrin alpha L beta 2 (ITGAL&ITGB2) Heterodimer Protein, His Tag&Tag Free

Catalog # IT2-H53W3



100

Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free ELISA 1  $\mu g$  of Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free per well



Immobilized Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT2-H53W3) at 10  $\mu$ g/mL (100  $\mu$ L/well) can bind Human ICAM-1, Fc Tag (Cat. No. IC1-H5250) with a linear range of 0.4-6 ng/mL (QC tested).

1 μg of Human ICAM-1, Fc Tag per well

EC50=3.19 μg/mL

Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free ELISA

Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free Conc. (μg/mL)

1

0.1

10

Immobilized Human ICAM-1, Fc Tag (Cat. No. IC1-H5250) at 10  $\mu$ g/mL (100  $\mu$ L/well) can bind Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT2-H53W3) with a linear range of 0.156-5  $\mu$ g/mL (Routinely tested).

## Background

Integrin alpha-L beta-2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4. Integrin alpha L beta 2 is also a receptor for F11R (By similarity). Involved in a variety of immune phenomena including leukocyte-endothelial cell interaction, cytotoxic T-cell mediated killing, and antibody dependent killing by granulocytes and monocytes. Contributes to natural killer cell cytotoxicity. Involved in leukocyte adhesion and transmigration of leukocytes including T-cells and neutrophils. Required for generation of common lymphoid progenitor cells in bone marrow, indicating the role in lymphopoiesis. Integrin alpha L beta 2 in association with ICAM3, contributes to apoptotic neutrophil phagocytosis by macrophages.

## **Clinical and Translational Updates**

