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

Catalog # IT2-H53W3

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

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 / rFC method.

Purity

>95% 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

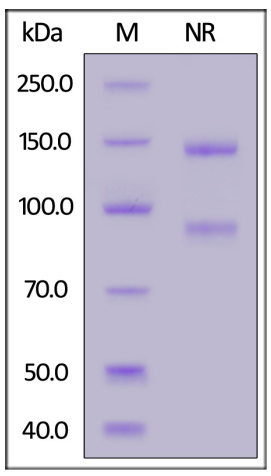
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

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

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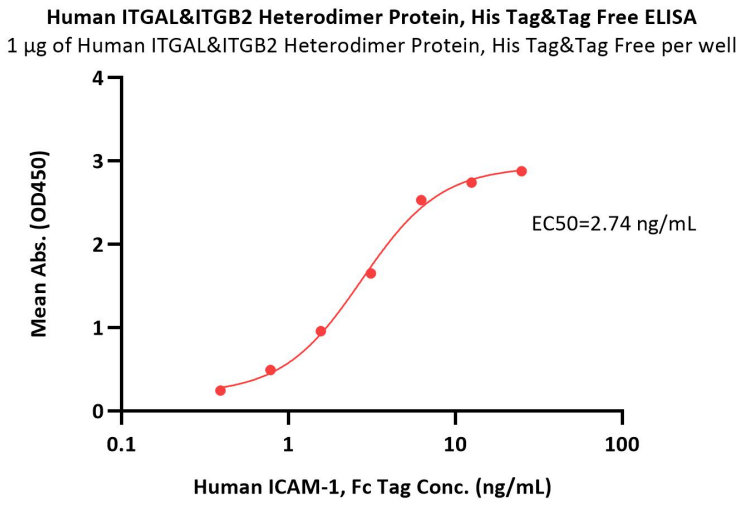
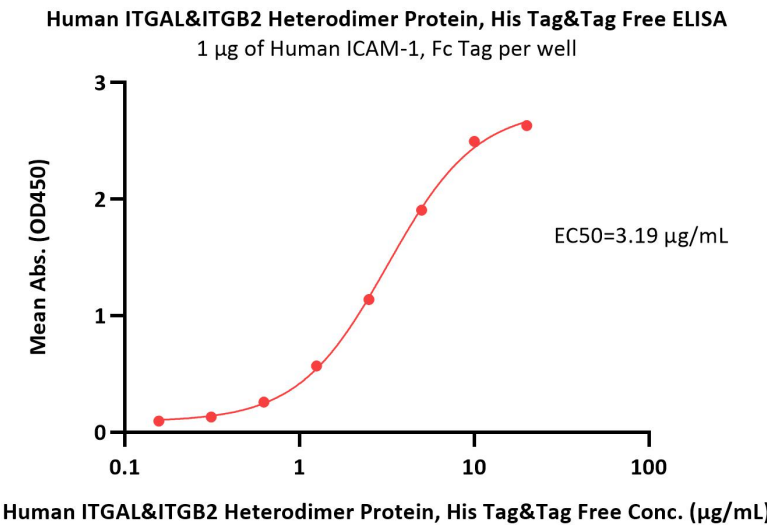


Immobilized Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT2-H53W3) at 10 μg/mL (100 μL/well) can bind Human ICAM-1, Fc Tag (Cat. No. IC1-H5250) with a linear range of 0.4-6 ng/mL (QC tested).



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