Biotinylated Human LAIR1 / CD305 Protein, Fc,Avitag™ (MALS verified)

Catalog # LA1-H82F5

Synonym

LAIR1,CD305

Source

Biotinylated Human LAIR-1, Fc,Avitag(LA1-H82F5) is expressed from human 293 cells (HEK293). It contains AA Gln 22 - His 163 (Accession # Q6GTX8-1). Predicted N-terminus: Gln 22

Molecular Characterization

This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 43.6 kDa. The protein migrates as 50-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 100mM Gly, 25mM Arginine, 150mM 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

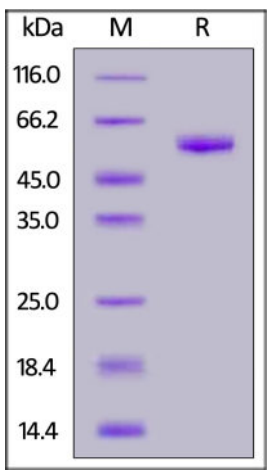
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

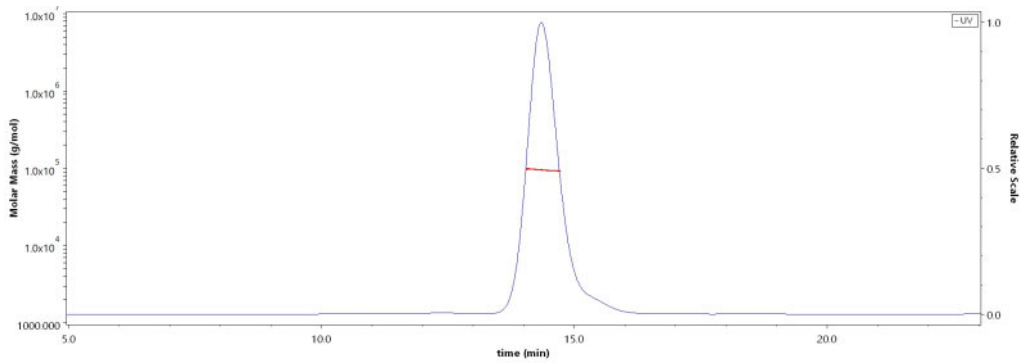
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



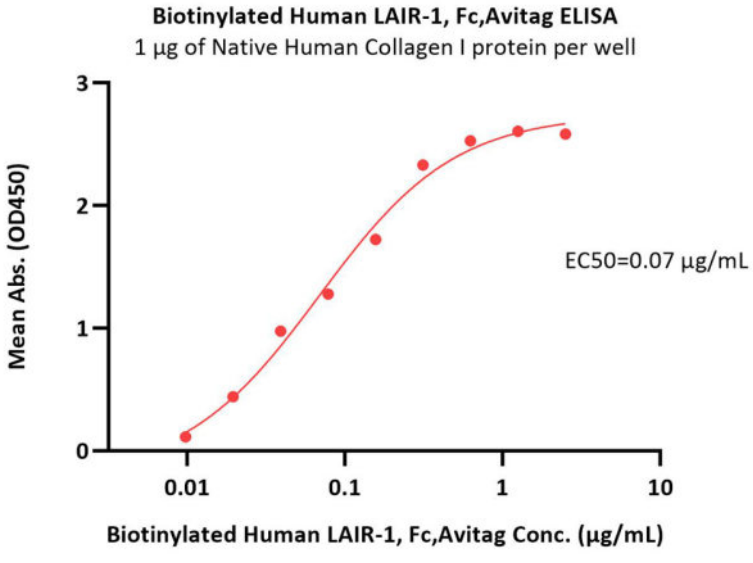
Biotinylated Human LAIR-1, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of Biotinylated Human LAIR-1, Fc,Avitag (Cat. No. LA1-H82F5) is more than 90% and the molecular weight of this protein is around 85-113 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Native Human Collagen I protein at 10 μg/mL (100 μL/well) can bind Biotinylated Human LAIR-1, Fc,Avitag (Cat. No. LA1-H82F5) with a linear range of 0.01-0.625 μg/mL (QC tested).

Background

Leukocyte-associated immunoglobulin-like receptor-1 (LAIR-1) is constitutively expressed on the majority of human peripheral blood mononuclear leukocytes. LAIR-1 or CD305 is a transmembrane glycoprotein with a single immunoglobulin-like domain and a cytoplasmic tail containing two immune receptor tyrosine-based inhibitory motifs. LAIR-1 recruits SHP-1 and SHP-2 phosphatases upon activation, and cross-linking of the LAIR-1 antigen on natural killer (NK) cells results in strong inhibition of NK cell–mediated cytotoxicity.
Functions as an inhibitory receptor that plays a constitutive negative regulatory role on cytolytic function of natural killer (NK) cells, B-cells and T-cells. Activation by Tyr phosphorylation results in recruitment and activation of the phosphatases PTPN6 and PTPN11. It also reduces the increase of intracellular calcium evoked by B-cell receptor ligation.Diseases associated with LAIR1 include Chronic Active Epstein-Barr Virus Infection and Palindromic Rheumatism.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.