

Human LAIR1/CD305 Protein

Cat. No. LAI-HM4R1

Description

Source	Recombinant Human LAIR1/CD305 Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains Gln22-His163.
Accession	Q6GTX8-1
Molecular Weight	The protein has a predicted MW of 18.2 kDa. Due to glycosylation, the protein migrates to 30-36 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

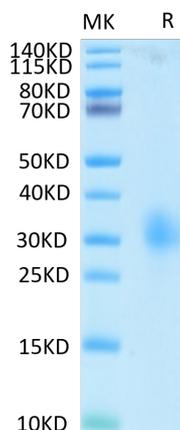
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-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

LAIR1 (leukocyte-associated Ig-like receptor-1, designated CD305) is an approximately 40 kDa type I transmembrane inhibitory glycoprotein belonging to the Ig superfamily. LAIR1 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.

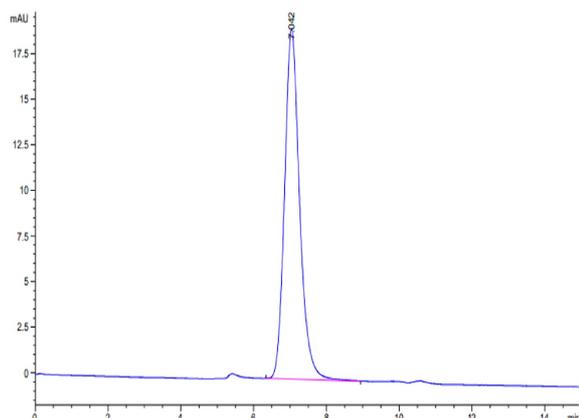
Assay Data

Bis-Tris PAGE



Human LAIR1 on Bis-Tris PAGE under reduced conditions. The purity is greater than 95%.

SEC-HPLC



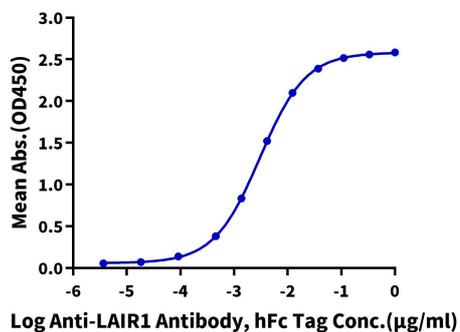
The purity of Human LAIR1 is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

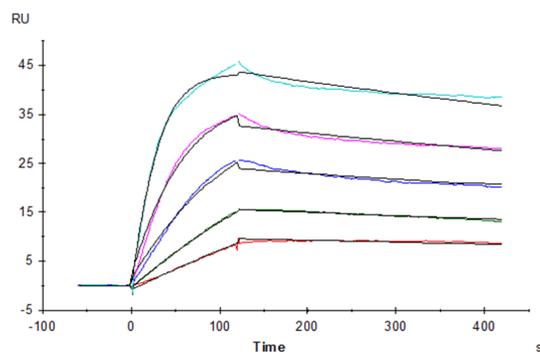
Human LAIR1, His Tag ELISA

0.05µg Human LAIR1, His Tag Per Well



Immobilized Human LAIR1, His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Anti-LAIR1 Antibody, hFc Tag with the EC50 of 3.0ng/ml determined by ELISA (QC Test).

SPR Data



Human LAIR1, His Tag captured on CM5 Chip via Anti-His Antibody can bind Native Human Collagen I protein with an affinity constant of 0.082 nM as determined in SPR assay (Biacore T200).