

Recombinant Human LAIR1 protein, Fc-tagged

Cat. No. LAIR1-377H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human LAIR1 protein (Gln22-His163), fused to human IgG1 Fc tag at C-terminus, was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	142
Description	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.
Form	Lyophilized from 0.22 um filtered solution in Tris with Glycine, Arginine and NaCl,

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	pH7.5, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 42.1 kDa. The protein migrates as 55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU per ug by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	LAIR1
Official Symbol	LAIR1
Synonyms	LAIR1; leukocyte-associated immunoglobulin-like receptor 1; leukocyte associated Ig like receptor 1; CD305; hLAIR1; leukocyte-associated Ig-like receptor 1; LAIR-1
Gene ID	3903
mRNA Refseq	NM_002287

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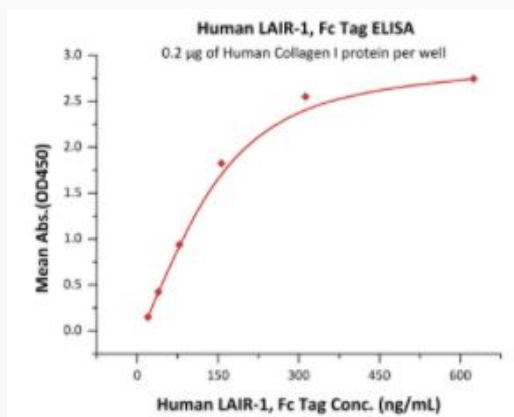
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Protein Refseq NP_002278

MIM 602992

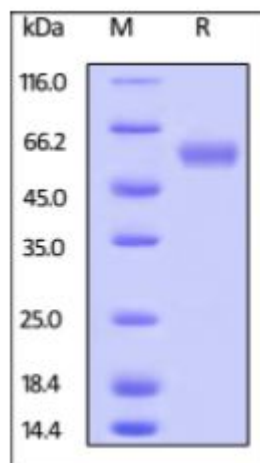
UniProt ID Q6GTX8

Bioactivity-ELISA of LAIR1-377H



Immobilized Human Collagen I protein at 2 µg/mL (100 µL/well) can bind Human LAIR-1, Fc Tag with a linear range of 20-156 ng/mL (QC tested).

SDS-PAGE of LAIR1-377H



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

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