

Recombinant Mouse LAIR1 protein, Mouse IgG2a Fc-tagged, low endotoxin

Cat. No. LAIR1-378M Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant Mouse LAIR1 protein (Gln22-Tyr141)(low endotoxin), fused to Mouse IgG2a Fc tag at C-terminus, was expressed in human 293 cells (HEK293).

Species

Mouse

Source

HEK293

ProteinLength

120

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.

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Form	Lyophilized from 0.22 um filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 40.6 kDa. The protein migrates as 50-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 0.1 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 Ig-like receptor 1; leukocyte-associated immunoglobulin-like receptor 1; mLAIR1; Lair-1; mLair-1; BB115266; D7Bwg0421e; 5133400O11Rik
Gene ID	52855

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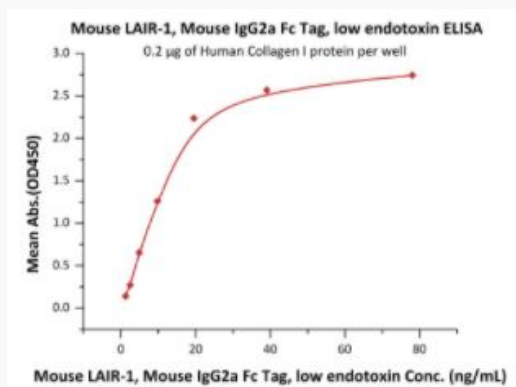
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mRNA Refseq [NM_001113474](#)

Protein Refseq [NP_001106945](#)

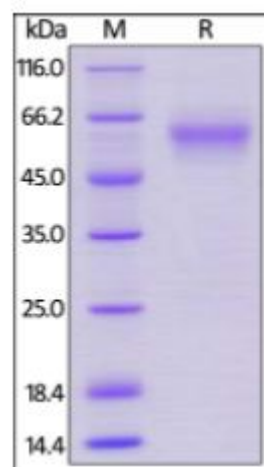
UniProt ID [Q8BG84](#)

Bioactivity-ELISA of LAIR1-378M



Immobilized Human Collagen I protein at 2 µg/mL (100 µL/well) can bind Mouse LAIR-1, Mouse IgG2a Fc Tag, low endotoxin with a linear range of 1-10 ng/mL (QC tested).

SDS-PAGE of LAIR1-378M



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Mouse LAIR-1, Mouse IgG2a Fc Tag, low endotoxin 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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