Recombinant Rhesus macaque LAIR1 protein, Mouse IgG Fc-tagged

Cat. No. LAIR1-1706R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rhesus macaque LAIR1 (Gln22-Try165) protein was fused to mouse IgG2a Fc tag at C-terminus and expressed in human 293 cells (HEK293).
Species	Rhesus macaque
Source	HEK293
ProteinLength	Gln22-Try165
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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Predicted N Terminal	Gln22
Form	Lyophilized from 0.22 μm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 42.9 kDa. The protein migrates as 64 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU per μg 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 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℃ before opening to recover the entire contents.

GENE INFORMATION

Gene Name	LOC695533
Official Symbol	LOC695533
Synonyms	LAIR1
Gene ID	695533

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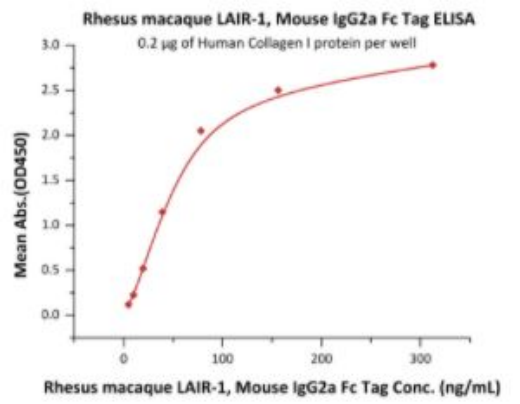
mRNA Refseq	XM_028839306.1
Protein Refseq	XP_028695139.1
UniProt ID	F7BYP5
Bioactivity-ELISA of LAIR1-1706R	 Immobilized Human Collagen I protein at 2 μg/mL (100 μL/well) can bind Rhesus macaque LAIR-1, Mouse IgG2a Fc Tag with a linear range of 5-78 ng/mL (QC tested).

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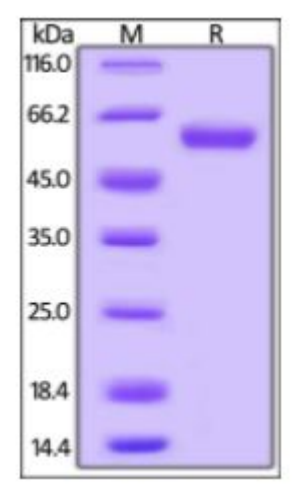
SDS-PAGE of LAIR1-1706R



Rhesus macaque LAIR-1, Mouse IgG2a 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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