

Product datasheet for **TP726794**

LAIR1 Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human LAIR1/CD305 (C-6His)
Species:	Human
Expression cDNA Clone or AA Sequence:	Gln22-His163
Tag:	C-His
Buffer:	Lyophilized from a 0.2 um filtered solution of 20mM PB, 150mM NaCl, pH 7.2.
Note:	Recombinant Human Leukocyte-Associated Immunoglobulin-Like Receptor 1 is produced by our Mammalian expression system and the target gene encoding Gln22-His163 is expressed with a 6His tag at the C-terminus.
Stability:	12 months from date of despatch
Locus ID:	3903
UniProt ID:	Q6GTX8
Summary:	Leukocyte-Associated Immunoglobulin-Like Receptor 1 (LAIR1) is a single-pass type I membrane protein. LAIR1 expressed on the majority of peripheral mononuclear cells, including natural killer (NK) cells, T-cells, B-cells, monocytes, and dendritic cells, highly in naive T-cells and B-cells. As an inhibitory receptor, LAIR1 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. LAIR1 plays inhibitory role independently of SH2-containing phosphatases and modulates cytokine production in CD4+ T-cells. It down-regulates IL2 and IFNG production while inducing secretion of transforming growth factor beta, also down-regulates IgG and IgE production in B-cells as well as IL8, IL10 and TNF secretion. LAIR1 inhibits the differentiation of peripheral blood precursors towards dendritic cells. It also restrains proliferation and induces apoptosis in myeloid leukemia cell lines as well as prevents nuclear translocation of NF-kappa-B p65 subunit/RELA and phosphorylation of I-kappa-B alpha/CHUK in these cells.



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