

**Product Name: Recombinant Human LAIR1 (C-mFc)**  
**Catalog #: PHH2160**



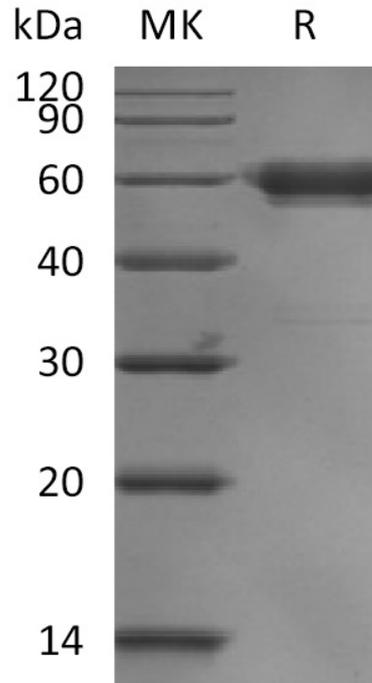
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## Summary

<b>Name</b>	LAIR1/CD305/Leukocyte-associated Immunoglobulin-like Receptor 1
<b>Purity</b>	Greater than 95% as determined by reducing SDS-PAGE
<b>Endotoxin level</b>	<1 EU/μg as determined by LAL test.
<b>Construction</b>	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 mouse IgG1 Fc tag at the C-terminus.
<b>Accession #</b>	Q6GTX8
<b>Host</b>	Human Cells
<b>Species</b>	Human
<b>Predicted Molecular Mass</b>	41.8 KDa
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
<b>Stability&amp;Storage</b>	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
<b>Reconstitution</b>	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

## SDS-PAGE image

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### **Alternative Names**

Leukocyte-Associated Immunoglobulin-Like Receptor 1; LAIR-1; hLAIR1; CD305; LAIR1

### **Background**

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.

### **Note**

For Research Use Only , Not for Diagnostic Use.