

Human LAIR1 Protein (Fc Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 13257-H02H

General Information

Gene Name Synonym:

CD305; LAIR-1

Protein Construction:

A DNA sequence encoding the human LAIR1 (Q6GT8.1) (Met1-Tyr165) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Predicted N terminal: Gln 22

Molecular Mass:

The recombinant human LAIR1 consists 385 amino acids and predicts a molecular mass of 42.8 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

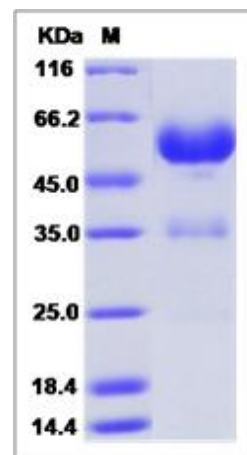
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Leukocyte associated Ig-like receptor-1 (LAIR1) is a surface molecule expressed on human mononuclear leukocytes that functions as an inhibitory receptor on human NK cells. In addition to NK cells, LAIR1 is expressed on T cells, B cells, macrophages, and dendritic cells. It is predicted to mediate inhibitory functions based on the presence of immunoreceptor tyrosine-based inhibitory motifs (ITIMs) in its cytoplasmic domain. Cross-linking of LAIR1 on human T cell clones results in inhibition of cytotoxicity only in T cell clones that lack CD28 and are able to spontaneously lyse certain targets in vitro. Moreover, the cytolytic activity of freshly isolated T cells, which is thought to be mainly due to "effector" T cells, can be inhibited by anti-LAIR1 mAb. Thus, LAIR1 functions as an inhibitory receptor not only on NK cells, but also on human T cells. This indicates that LAIR1 provides a mechanism of regulation of effector T cells and may play a role in the inhibition of unwanted bystander responses mediated by Ag-specific T cells.

References

1. Meyaard L, et al. (1999) Leukocyte-associated Ig-like receptor-1 functions as an inhibitory receptor on cytotoxic T cells. J Immunol. 162 (10): 5800-4.
2. Meyaard L, et al. (2001) The epithelial cellular adhesion molecule (Ep-CAM) is a ligand for the leukocyte-associated immunoglobulin-like receptor (LAIR). J Exp Med. 194 (1): 107-12.
3. Xu M, et al. (2000) Identification and characterization of leukocyte-associated Ig-like receptor-1 as a major anchor protein of tyrosine phosphatase SHP-1 in hematopoietic cells. J Biol Chem. 275 (23): 17440-6.

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