

Recombinant Human LAIR1 Protein (Fc Tag)

Catalog No. PKSH030465

Note: Centrifuge before opening to ensure complete recovery of vial contents.

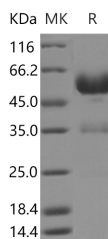
Description

Synonyms	Leukocyte-Associated Immunoglobulin-Like Receptor 1;LAIR-1;hLAIR1;CD305;LAIR1
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Tyr165
Accession	Q6GTX8.1
Calculated Molecular Weight	42.8 kDa
Tag	C-hFc
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

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,

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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.