

Active Recombinant Human LAIR2 protein, Fc/Avi-tagged, Biotinylated

Cat. No. LAIR2-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human LAIR2(Gln22-Pro152) protein, fused to Fc/Avi tag at the C-terminus, was expressed in CHO cells .
Species	Human
Source	CHO
ProteinLength	Gln22-Pro152
Description	LAIR2 (leukocyte-associated Ig-like receptor-2; CD306) is a secreted, 131 amino acid (aa) protein that contains one Ig-like C2 type domain, making it a member of the Ig superfamily. When compared to LAIR1, its transmembrane counterpart, LAIR2 shares 83% aa identity across the signal sequence and extracellular domains (1-3). Although one is secreted and the other is membrane-bound, the two LAIR proteins are thought to have arisen from a common gene ancestor and appear to share similar adhesion profiles. This suggests that LAIR2 may compete with LAIR1 for ligand binding (3, 4). A 114 aa alternate splice form of LAIR-2 is truncated at the C-terminus, but retains the entire Ig domain (1-3). The expression profile of these splice forms, and the presence of orthologs in other species, have not been reported. LAIR2 is a soluble collagen-receptor, and it can be detected in the synovial fluid of rheumatoid arthritis patients, urine of pregnant women, and as well as primary cells (5, 6). In vitro studies have demonstrated LAIR2 can compete with LAIR1 for the same collagen binding site and suggesting LAIR2 may play an important role

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in immune cell activation (5, 6). LAIR2 can interact with complement component 1q (C1q) and mannose-binding lectin (MBL) and act as a complement inhibitor for the treatment and prevention of antibody-mediated allograft rejection and antibody-mediated clinical conditions (7). Our Avi-tag Biotinylated human LAIR2 features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.

Predicted N Terminal	Gln22
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Bovine Collagen I is coated at 10 µg/mL (100 µL/well), Biotinylated Recombinant Human LAIR2 Fc Chimera Avi-tag binds with an ED50 of 0.175-1.4 ng/mL.
Molecular Mass	50-59 kDa, under reducing conditions
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after

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reconstitution.

Reconstitution Reconstitute at 500 µg/mL in PBS.

Conjugation Biotin

GENE INFORMATION

Gene Name LAIR2 leukocyte-associated immunoglobulin-like receptor 2 [Homo sapiens]

Official Symbol LAIR2

Synonyms LAIR2; leukocyte-associated immunoglobulin-like receptor 2; leukocyte associated Ig like receptor 2; CD306; LAIR-2; leukocyte-associated Ig-like receptor 2; leukocyte-associated Ig-like receptor-2; MGC71634;

Gene ID 3904

mRNA Refseq NM_002288

Protein Refseq NP_002279

MIM 602993

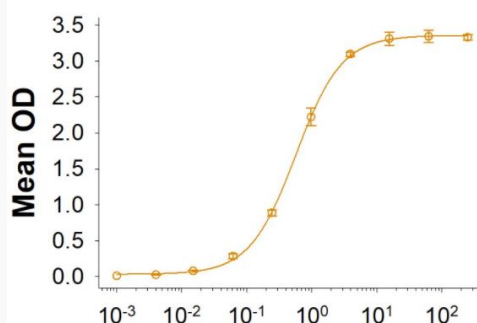
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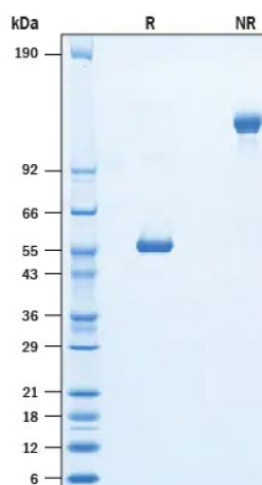
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Binding Activity



SDS-PAGE



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.