

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived
Glu24-Asn446, with a C-terminal 6-His tag
Accession # P59901

N-terminal Sequence Analysis Glu24

Predicted Molecular Mass 47 kDa

SPECIFICATIONS

SDS-PAGE 60-73 kDa, reducing conditions

Activity Measured by its binding ability in a functional ELISA.
When Recombinant Human LILRA4/CD85g/ILT7 is coated at 1 µg/mL, Recombinant Human Angiopoietin-like Protein 7/ANGPTL7 (Catalog # 914-AN) binds with a typical ED₅₀ = 20-120 ng/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >90%, by SDS-PAGE with silver staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & 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 reconstitution.

BACKGROUND

LILRA4, also known as ILT7 and CD85g, is an approximately 60-70 kDa variably glycosylated transmembrane protein that regulates immune cell activation (1). Mature human LILRA4 consists of a 423 amino acid (aa) extracellular domain (ECD) with four immunoglobulin-like domains, a 21 aa transmembrane segment, and a 32 aa cytoplasmic domain (2). Alternative splicing generates an additional isoform that lacks the signal peptide and a portion of the first Ig-like domain. LILRA4 is expressed on plasmacytoid dendritic cells (pDC) but is down-regulated in response to TLR9 signaling (3-5). Antibody mediated crosslinking of LILRA4 on pDC inhibits the production of type I interferons following TLR7 or TLR9 stimulation (3, 4, 6). It also blocks the up-regulation of CCR7 but enhances the up-regulation of Integrin β7 on TLR7/9-stimulated pDC (6). LILRA4 associates with the ITAM-containing adaptor protein Fcε R1γ (3, 4, 6), and this complex binds to cell surface BST2/Tetherin which is expressed on monocytes, plasmacytoid and myeloid dendritic cells, B cells, and activated CD4⁺ and CD8⁺ T cells (5, 8). This interaction inhibits the TLR-induced pDC production of type I interferons, IL-6, and TNF-α (8).

References:

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