Recombinant Human LILRA4/CD85g/ILT7

Catalog Number: 8914-T4

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived human LILRA4/CD85g/ILT7 protein Glu24-Asn446, with a C-terminal 6-His tag Accession # P59901
N-terminal Sequence Analysis	Glu24
Predicted Molecular Mass	47 kDa

SPECIFICATIONS

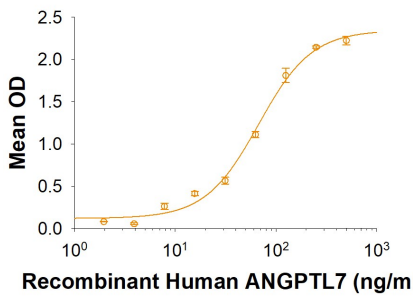
SDS-PAGE	60-73 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human LILRA4/CD85g/ILT7 is coated at 1 µg/mL, Recombinant Human Angiopoietin-like Protein 7/ANGPTL7 (Catalog # 914-AN) binds with a typical ED_{50} of 20-120 ng/mL.
Endotoxin Level	<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.

DATA

Binding Activity



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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 RIγ (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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