Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag Avi-tag

Catalog Number: AVI8989

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived human LILRB1/CD85j/ILT2 protein

Human LILRB1/CD85j/ILT2 (Gly24-Arg457) Accession # Q8NHL6.1	6-His tag	Avi-tag

N-terminus C-terminus

N-terminal Sequence Analysis	Gly24
Structure / Form	Biotinylated via Avi-tag
Predicted Molecular Mass	50 kDa

SPECIFICATIONS

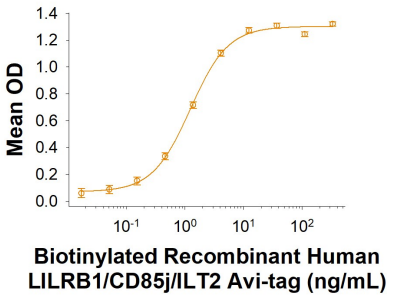
SDS-PAGE	70-80 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. When Human LILRB1/CD85j/ILT2 Antibody (Catalog # MAB20172) is immobilized at 0.2 µg/mL (100 µL/well), Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag Avi-tag (Catalog # AVI8989) binds with an ED_{50} of 0.600-9.00 ng/mL.
Endotoxin Level	<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.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 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.

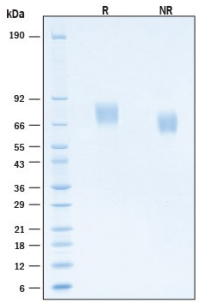
DATA

Binding Activity



Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag Avi-tag Protein Binding Activity. When Human LILRB1/CD85j/ILT2 Antibody (Catalog # MAB20172) is immobilized at 0.2 µg/mL (100 µL/well), Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag Avi-tag Protein (Catalog # AVI8989) binds with an ED_{50} of 0.600-9.00 ng/mL.

SDS-PAGE



Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag Avi-tag Protein SDS-PAGE. 2 µg/lane of Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag Avi-tag Protein (Catalog # AVI8989) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 70-80 kDa.

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BACKGROUND

LILRB1, also known as CD85j and ILT2, is a 110 kDa transmembrane glycoprotein in the LILR immunoregulatory protein family (1). Mature human LILRB1 consists of a 438 amino acid (aa) extracellular domain (ECD) with 4 tandem Ig-like domains, a 21 aa transmembrane segment, and a 168 aa cytoplasmic domain with 4 inhibitory ITIM motifs (2). Alternative splicing generates an additional isoform that lacks the transmembrane and cytoplasmic regions (3). LILRB1 is expressed on the surface of B cells and monocytes, as well as subsets of NK cells, memory/effector CD8+ T cells, γδ T cells, and monocyte-derived dendritic cells (3-7). LILRB1 binds to MHC-I as well as non-classical MHC-I molecules (e.g. HLA-F, HLA-G, and HLA-B27) and the MHC-I mimetic UL18 encoded by cytomegalovirus (3, 5, 8-10). R&D Systems in-house testing indicates that LILRB1 also binds to Angiopoietin-like 7. Ligation of LILRB1 inhibits the antigen induced proliferation and activation of CD8+ T cells, CD4+ T cells, NK cells, and γδ T cells (3, 4, 11-13). On dendritic cells, ligation inhibits the production of IL-10, IL-12p70, and TGF-β and protects from Fas-mediated apoptosis (7). Our Avi-tag Biotinylated human LILRB1 His-tag protein 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.

References:

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