Recombinant Human LILRA6/CD85b

Catalog Number: 9088-T4

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived Gly24-Asn447, with a C-terminal 6-His tag Accession # Q6PI73
N-terminal Sequence Analysis	Gly24
Predicted Molecular Mass	47 kDa

SPECIFICATIONS

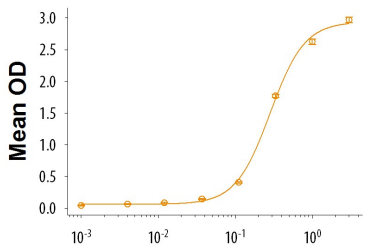
SDS-PAGE	62-69 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human LILRA6/CD85b/ILT8 is coated onto a microplate at 2 µg/mL, Recombinant Human Angiopoietin-like Protein 7/ANGPTL7 (Catalog # 914-AN) binds with a typical ED_{50} = 0.1-0.6 µg/mL.
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. 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

Bioactivity



When Recombinant Human LILRA6/CD85b/ILT8 is coated onto a microplate at 2 µg/mL, Recombinant Human Angiopoietin-like Protein 7 (Catalog # 914-AN) binds with a typical ED_{50} of 0.1-0.6 µg/mL.

BACKGROUND

LILRA6, also known as ILT8 and CD85b, is a transmembrane molecule that belongs to the LILR family of immune regulatory proteins (1, 2). Among family members, LILRA6 is most closely related to LILRB3/CD85a/ILT5; these proteins share 94% amino acid (aa) sequence identity in their extracellular domains (ECD). Mature human LILRA6 consists of a 424 aa ECD with two immunoglobulin-like domains, a 21 aa transmembrane segment, and a 13 aa cytoplasmic domain (3). It contains a positively charged arginine residue in the transmembrane segment which may mediate association with the signaling protein Fcε RI gamma. Alternative splicing generates a short isoform that is truncated near the middle of the ECD. LILRA6 is highly polymorphic, and its gene is found in variably copy numbers (4, 5). LILRA6 is primarily expressed on monocytes (4). R&D Systems in-house testing indicates that LILRA6 binds to Angiopoietin-like 7, consistent with the demonstrated functional interactions between other members of these protein families (6).

References:

1. Thomas, R. *et al.* (2010) Clin. Rev. Allergy Immunol. **38**:159.
2. Hirayasu, K. and H. Arase (2015) J. Hum. Genet. **60**:703.
3. Wende, H. *et al.* (2000) Immunogenetics **51**:703.
4. Bashirova, A.A. *et al.* (2014) Immunogenetics **66**:1.
5. Lopez-Alvarez, M.R. et al. (2014) Immunogenetics **66**:73.
6. Zheng, J. *et al.* (2012) Nature **485**:656.

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