Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag

Catalog Number: BT8989

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human LILRB1/CD85j/ILT2 protein Gly24-His458, with a C-terminal 6-His tag Accession # Q8NHL6.1
N-terminal Sequence Analysis	Gly24
Structure / Form	Biotinylated via amines
Predicted Molecular Mass	48 kDa

SPECIFICATIONS

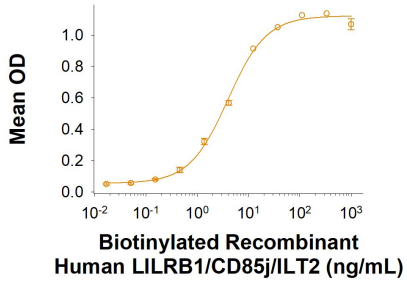
SDS-PAGE	68-79 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. When Human LILRB1/CD85j/ILT2 Antibody (Catalog # MAB20172) is immobilized at 0.2 µg/mL (100 µL/well), Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag (Catalog # BT8989) binds with an ED_{50} of 1.00-15.0 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.

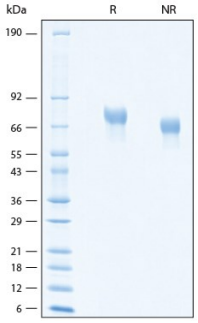
DATA

Binding Activity



Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag 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 Protein (Catalog # BT8989) binds with an ED_{50} of 1.00-15.0 ng/mL.

SDS-PAGE



Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag Protein SDS-PAGE. 2 µg/lane of Recombinant Human LILRB1/CD85j/ILT2 His-tag Biotinylated Protein (Catalog # BT8989) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 68-79 kDa.

Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Biotinylated Recombinant Human LILRB1/CD85j/ILT2 His-tag

Catalog Number: BT8989

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).

References:

1. Thomas, R. *et al.* (2010) Clin. Rev. Allergy Immunol. **38**:159.
2. Samaridis, J. and M. Colonna (1997) Eur. J. Immunol. **27**:660.
3. Colonna, M. *et al.* (1997) J. Exp. Med. **186**:1809.
4. Harly, C. *et al.* (2011) Blood **117**:2864.
5. Cosman, D. *et al.* (1997) Immunity **7**:273.
6. Young, N.T. *et al.* (2001) J. Immunol. **166**:3933.
7. Young, N.T. *et al.* (2008) Blood **111**:3090.
8. Lepin, E.J.M. *et al.* (2000) Eur. J. Immunol. **30**:3552.
9. Shiroishi, M. *et al.* (2003) Proc. Natl. Acad. Sci. USA **100**:8856.
10. Allen, R.L. *et al.* (2001) J. Immunol. **167**:5543.
11. Ince, M.N. *et al.* (2004) Immunology **112**:531.
12. Saverino, D. *et al.* (2000) J. Immunol. **165**:3742.
13. Saverino, D. *et al.* (2002) J. Immunol. **168**:207.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449