

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived human LILRB1/CD85j/ILT2 protein		
	Human LILRB1/CD85j/ILT2 (Gly24-His458) Accession # Q8NHL6	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence Analysis	Gly24		
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	73.8 kDa (monomer)		

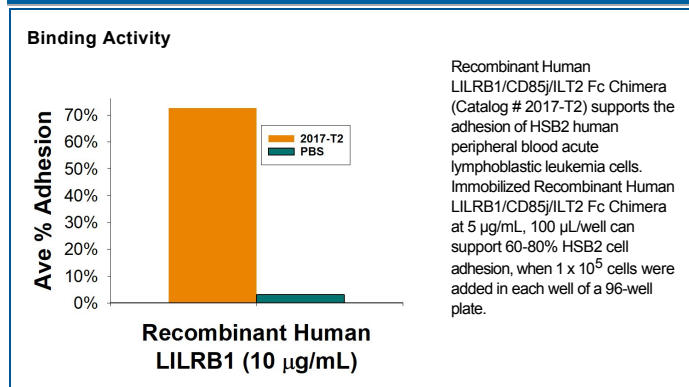
SPECIFICATIONS

SDS-PAGE	106 kDa, reducing conditions
Activity	Measured by its ability to support the adhesion of HSB2 human peripheral blood acute lymphoblastic leukemia cells. Immobilized Recombinant Human LILRB1/CD85j/ILT2 Fc Chimera at 5 µg/mL, 100 µL/well can support 60-80% HSB2 cell adhesion, when 1 x 10 ⁵ cells were added in each well of a 96-well plate.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
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 sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 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



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, $\gamma\delta$ 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 HC-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 $\gamma\delta$ 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:

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