**DESCRIPTION**

**Source**
Mouse myeloma cell line, NS0-derived human LILRB1/CD85j/ILT2 protein

<table>
<thead>
<tr>
<th>Human LILRB1/CD85j/ILT2</th>
<th>IEGRMD</th>
<th>Human IgG1</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Gly24-His458)</td>
<td></td>
<td>(Pro100-Lys330)</td>
</tr>
</tbody>
</table>

**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**
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**
Recombinant Human LILRB1/CD85j/ILT2 Fc Chimera (Catalog # 2017-T2) supports 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.
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 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 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: