

## DESCRIPTION

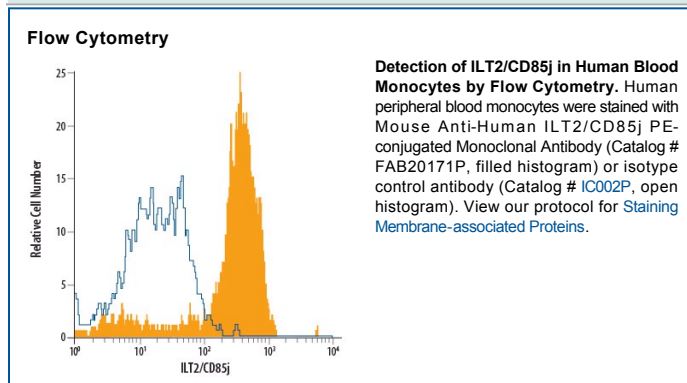
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human ILT2/CD85j in Western blots. In Western blots, no cross-reactivity with recombinant human (rh) ILT4, rhILT5, rhLIR6 or rhLIR8 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 292305
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human ILT2/CD85j Gly24-His458 Accession # Q8NHL6
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

The immunoglobulin-like transcript (ILT) family of activating and inhibitory type immunoreceptors are expressed on many leukocyte subsets and function in the regulation of immune responses (1–3). This family was also named leukocyte Ig-like receptors (LIR) and monocyte/macrophage Ig-like receptors (MIR). ILTs share significant homology with killer cell Ig-like receptors (KIR). The ILT genes are located on human chromosome 19q13.4 in the leukocyte receptor complex, which also include the genes encoding KIRs (4). With the exception of ILT-6, which is a soluble molecule, all ILT family members are type I transmembrane proteins having two or four extracellular Ig-like domains (2, 3). One subset of the ILT receptors (referred to as subfamily B of the LIRs) has long cytoplasmic tails containing immunoreceptor tyrosine-based inhibitory motifs (ITIMs) that inhibit signaling events by recruiting SH2-containing protein tyrosine phosphatase-1. Another subset of the ILT receptors (referred to as subfamily A of the LIRs) contains activating receptors with short cytoplasmic regions that lack signal transduction motifs. These receptors contain a basic arginine residue within their transmembrane domains, which allows association with Fc R $\gamma$ , an immunoreceptor tyrosine-based activation motif (ITAM)-bearing signal adapter protein (1–3). ILT2, also known as LIR1, MIR7, and CD85j, is expressed on most monocytes, dendritic cells, and mature B cells (1–3). It is also expressed on small percentages of T cells and NK cells. ILT2 has four extracellular Ig-like domains and three cytoplasmic ITIMs. It functions as an inhibitory receptor that prevents cellular activation. ILT2 has been shown to bind classical (HLA-A and -B) and nonclassical (HLA-G1, -E and -F) MHC class I molecules (MHC I) (1–3). ILT2 also binds with high affinity to an MHC class I homologue from human cytomegalovirus (3). Ligation of ILT2 by MHC class I may function to poise cellular activation thresholds and inhibit various leukocyte effector mechanisms that are regulated by MHC class I molecules on target cells.

## References:

1. Allen, D. *et al.* (2000) *Immunobiol.* **202**:34.
2. Colonna, M. *et al.* (1999) *J. Leukocyte Biol.* **66**:375.
3. Borges, L. and D. Cosman (2000) *Cytokine Growth Factor Rev.* **11**:209.
4. Young, N. *et al.* (2001) *Immunogenetics* **53**:270.