

## DESCRIPTION

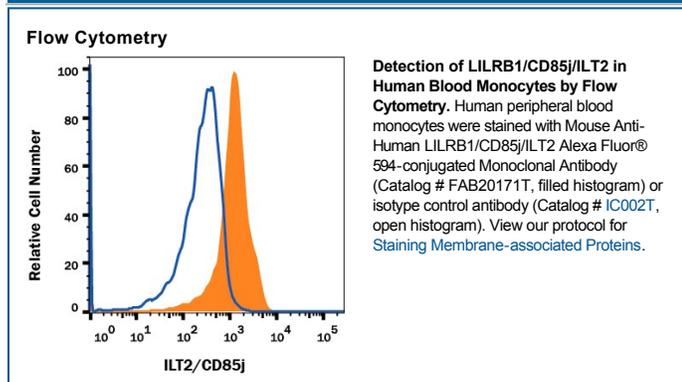
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human LILRB1/CD85j/ILT2 in Western blots. In Western blots, no cross-reactivity with recombinant human (rh) ILT4, rhILT5, rhLIR6 or rhLIR8 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 292305
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human LILRB1/CD85j/ILT2 Gly24-His458 Accession # Q8NHL6
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
<b>Formulation</b>	Supplied 0.2 mg/mL 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>	0.25-1 µg/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<sub>γ</sub>, 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 (MHC1) (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.

## PRODUCT SPECIFIC NOTICES

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