

DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human KIR3DL2/CD158k in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 539304
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	BaF3 mouse pro-B cell line transfected with human KIR3DL2/CD158k Accession # P43630
<b>Conjugate</b>	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 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		
<b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> 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**

**Flow Cytometry**

**Detection of KIR3DL2/CD158k in Human Blood Lymphocytes by Flow Cytometry.** Human peripheral blood lymphocytes were stained with Mouse Anti-Human NCAM-1/CD56 PE-conjugated Monoclonal Antibody (Catalog # [FAB2408P](#)) and either (A) Mouse Anti-Human KIR3DL2/CD158k APC-conjugated Monoclonal Antibody (Catalog # [FAB2878A](#)) or (B) Mouse IgG<sub>1</sub> Allophycocyanin Isotype Control (Catalog # [IC002A](#)). View our protocol for [Staining Membrane-associated Proteins](#).

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

KIR3DL2 (3DL2, p140, CD158k) is a type I transmembrane protein of the p70 family of killer cell Ig-like receptors (KIR). KIR are expressed on CD56<sup>dim</sup> NK cells and T cell subsets where they participate in identifying normal and abnormal cells and regulating effector functions of the innate immune system (1-4). KIR are named for the number of Ig-like domains (2D or 3D) in the extracellular domain (ECD) and whether they have long or short (L, S) cytoplasmic tails. Like other inhibitory KIR, KIR3DL2 has two ITIM domains within its long tail (3). KIR3DL2 is diverse, with twelve alleles identified and as many as five single amino acid polymorphisms found in a single individual (4-6). Unlike most other KIR, gene transcripts of KIR3DL2 are expressed by all individuals (4). KIR3DL2 is present on the cell surface as a disulfide-linked homodimer of 70 kDa, 434 aa subunits (4). KIR3DL2 has shown peptide-specific binding to some HLA-A antigens, including A3 and A11 (4, 7, 8). It also binds the abnormally folded HLA-B27 homodimer found in spondylarthritides, but not the normal heterodimer of HLA-B27 with  $\beta$ 2-microglobulin (9, 10). NK and CD4<sup>+</sup> T cells from patients with spondylarthritides show increased KIR3DL2<sup>+</sup> expression and may play a role in disease pathology (10). KIR3DL2 is also a marker for atypical mononuclear (Sezary) cells in the blood of patients with Sezary syndrome, an erythrodermic form of cutaneous T cell lymphoma (11). Human KIR3DL2 ECD shows 88-92% aa identity to KIR3DL2 of other primates. KIR receptors have no structural orthologs in non-primates, although mouse Ly-49 proteins are functional orthologs (3). KIR are highly related. The closest relative, KIR3DL1 shows 86% aa identity with KIR3DL2 within the ECD.

## References:

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