

DESCRIPTION

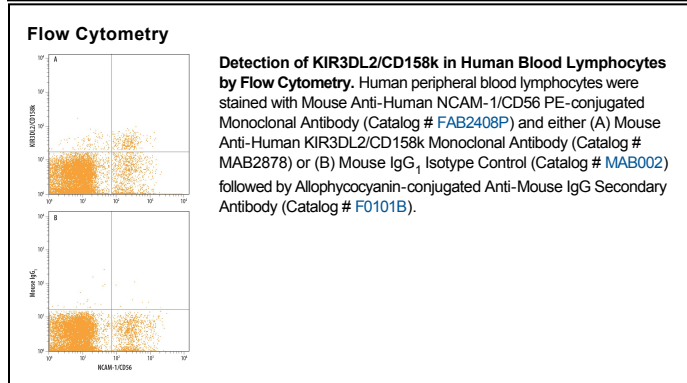
Species Reactivity	Human
Specificity	Detects human KIR3DL2/CD158k in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 539304
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	BaF3 mouse pro-B cell line transfected with human KIR3DL2/CD158k Accession # P43630
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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^{dim} 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 β 2-microglobulin (9, 10). NK and CD4⁺ T cells from patients with spondylarthritides show increased KIR3DL2⁺ 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:

1. Colonna, M. and J. Samaridis (1995) *Science* **268**:405.
2. Pende, D. *et al.* (1996) *J. Exp. Med.* **184**:505.
3. Lanier, L. L. (2005) *Annu. Rev. Immunol.* **23**:225.
4. Uhrberg, M. *et al.* (1997) *Immunity* **7**:753.
5. Meenaugh, A. *et al.* (2004) *Tiss. Antigens* **64**:226.
6. Kwon, D. *et al.* (2000) *Mol. Cells* **10**:54.
7. Dohring, C. *et al.* (1996) *J. Immunol.* **156**:3098.
8. Hansasuta, P. *et al.* (2004) *Eur. J. Immunol.* **34**:1673.
9. Kollnberger, S. *et al.* (2002) *Arthritis Rheum.* **46**:2972.
10. Chan, A. T. *et al.* (2005) *Arthritis Rheum.* **52**:3586.
11. Poszepczynska-Guigne, E. *et al.* (2004) *J. Invest. Dermatol.* **122**:820.