

**PE anti-human CD158e1 (KIR3DL1, NKB1)**

**Catalog # / Size:** 2163535 / 25 tests  
2163540 / 100 tests

**Clone:** DX9

**Isotype:** Mouse IgG1,  $\kappa$

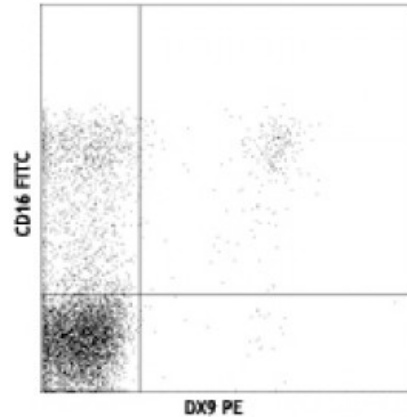
**Immunogen:** Human NK cell clone VL186-1.6

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Concentration:** Lot-specific



Human peripheral blood lymphocytes stained with DX9 PE and CD16 FITC

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** The DX9 antibody reacts with the KIR (killer cell inhibitory receptor) designated NKB1 or KIR3DL1. Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>1</sup> and restoring the NK cell cytotoxicity<sup>4,8</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m filtered) is recommended for functional assays (Cat. No. 312710).

**Application References:**

1. Litwin V, *et al.* 1994. *J. Exp. Med.* 180:537. (IP)
2. Gumperz J, *et al.* 1996. *J. Exp. Med.* 183:1817.
3. Gardiner CM, *et al.* 2001. *J. Immunol.* 166:2992.
4. Bakker ABH, *et al.* 1998. *J. Immunol.* 160:5239.
5. Goodier M, *et al.* 2000. *J. Immunol.* 165:139.
6. Kirwan SE and Burshtyn DN. 2005. *J. Immunol.* 175:5006. (FC)
7. Yawata M, *et al.* 2002. *Immunogenetics* 54:543.
8. Valiante NM, *et al.* 1997. *Immunity* 7:739.
9. Pascal V, *et al.* 2007. *J. Immunol.* 179:1625. (FC) [PubMed](#)
10. Lichtenfeld M, *et al.* 2008. *J. Exp. Med.* 204:2813. (FC) [PubMed](#)
11. Luetke-Eversloh M, *et al.* 2014. *PLoS Pathog.* 10:1004441. [PubMed](#)
12. Purdy AK, *et al.* 2014. *J Immunol.* 193:4675. [PubMed](#)

**Description:** CD158e1, also known as NKB1, is a 70 kD member of the immunoglobulin superfamily that is expressed on a subset of natural killer cells and T cells at varying levels among individuals. NKB1 is a type I membrane protein containing two immunoglobulin C2-type domains. The interaction of NKB1 with specific HLA-B antigens on a target cell (the HLA-Bw4 allele, for example) inhibits cytotoxicity and prevents target cell lysis and death. The interactions between KIR and MHC

class I are thought to be important in NK and T cell regulation following antigen stimulation. The absence of ligands for KIRs may lower the threshold for activation through activating receptors and increase inflammation and susceptibility to autoimmune disease.

**Antigen  
References:**

1. Colonna M, *et al.* 1995. *Science* 268:405.
2. D'Andrea A, *et al.* 1995. *J. Immunol.* 155:2306.
3. Uhrburg M, *et al.* 1997. *Immunity* 7:753.
4. Gumperz JE, *et al.* 1996. *J. E*