

**Alexa Fluor® 700 anti-human CD158e1 (KIR3DL1, NKB1)**

**Catalog # / Size:** 2163555 / 25 µg  
2163560 / 100 µg

**Clone:** DX9

**Isotype:** Mouse IgG1, κ

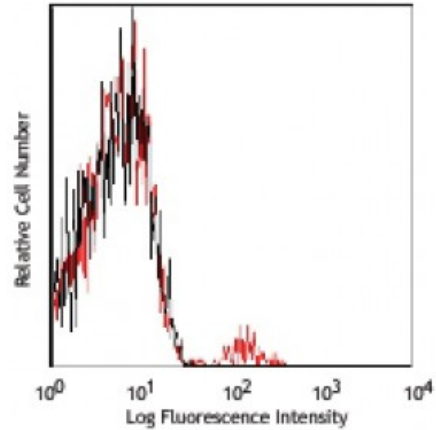
**Immunogen:** Human NK cell clone VL186-1.6

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 700 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5



Human peripheral blood lymphocytes stained with DX9 Alexa Fluor® 700

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. The suggested use of this reagent is ≤0.125 microg per million cells in 100 microL volume. It is highly recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**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/µg, Azide-Free, 0.2 µm 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. Miller JS, *et al.* 2014. *Biol Blood Marrow Transplant.* 20:1252. [PubMed](#)
  12. Cosgrove C, *et al.* 2014. *PLoS One.* 9:105950. [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*