

# Product Data Sheet

## Purified anti-human CD158e1 (KIR3DL1, NKB1)

**Catalog # / Size:** 312702 / 100 µg

**Clone:** DX9

**Isotype:** Mouse IgG1, κ

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

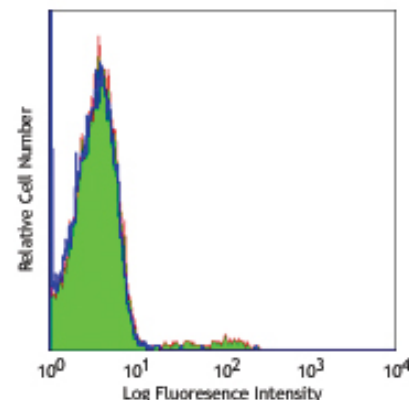
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography.

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

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C.



Human peripheral blood lymphocytes stained with purified DX9, followed by anti-mouse IgG FITC

## Applications:

**Applications:** FC - Quality tested  
IP - Reported in the literature

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is  $\leq 0.5$  µg per  $10^6$  cells in 100 µl volume. 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/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. Lichterfeld M, *et al.* 2008. *J. Exp. Med.* 204:2813. (FC) PubMed

**Description:** 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. Exp. Med.* 183:1817.
  5. Wagtmann N, *et al.* 1995. *Immunity* 3:801.

### Related Products:

Product	Clone	Application
Purified anti-human CD16	3G8	FC, IHC, IP, CyTOF®
Purified anti-human CD94	DX22	FC, IHC, IP
Purified anti-human HLA-DR	L243	FC, IHC, IP, WB, CyTOF®
Purified Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC, ICC, IF, IHC, IP, WB
APC Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC
FITC Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC
PE Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC
Purified anti-human CD56 (NCAM)	MEM-188	FC, IHC, IP, WB
Purified anti-human HLA-A,B,C	W6/32	FC, IHC, IP, WB



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Purified anti-human CD158b (KIR2DL2/L3, NKAT2)

DX27

FC



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