SONY

Product Data Sheet

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

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

Clone: DX9

Isotype: Mouse IgG1, κ

Immunogen: Human NK cell clone VL186-1.6

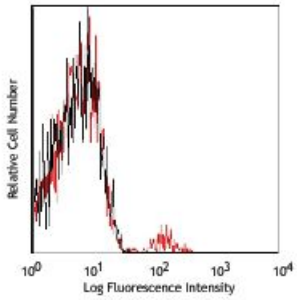
Reactivity: Human

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.

Workshop Number: V P018

Concentration: 0.5



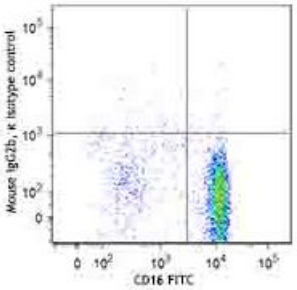
Human peripheral blood lymphocytes stained with DX9 Alexa Fluor® 700

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 µg per million cells in 100 µl 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: immunoprecipitation1 and restoring the NK cell cytotoxicity[4,8]. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 312710).

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

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