SONY

Product Data Sheet

Brilliant Violet 650™ anti-mouse NK-1.1

Catalog # / Size: 1143675 / 125 µl
1143680 / 50 µg

Clone: PK136

Isotype: Mouse IgG2a, κ

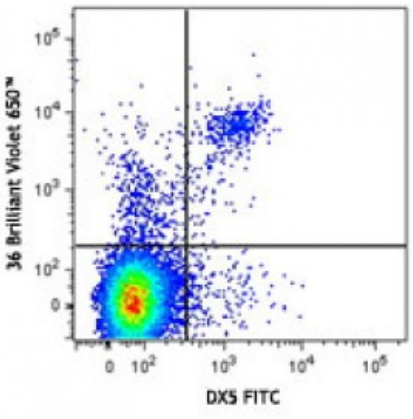
Immunogen: NK-1+ cells from mouse spleen and bone marrow

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 650™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 650™ and unconjugated antibody.

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

Concentration: microg sizes: 0.2 mg/ml
microL sizes: lot-specific



C57BL/6 mouse splenocytes were stained with NK1.1 (clone PK136) Brilliant Violet 650™ and CD49b (clone DX5) FITC.

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining using the microg size, the suggested use of this reagent is ≤0.5 microg per million cells in 100 microL volume. For flow cytometric staining using the microL size, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 650™ excites at 405 nm and emits at 645 nm. The bandpass filter 660/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 650™ is a trademark of Sirigen Group Ltd.

Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation[1,2], complement-dependent cytotoxicity3, *in vivo* depletion[4,5,9,10], mediation of *in vitro* redirected lysis[6], blocking of NK cell function[7], induction of proliferation[8], immunohistochemical staining of frozen sections[11], and immunofluorescence microscopy[11]. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for

functional assays (Cat. No. 108712).

Application References:

1. Carlyle JR, *et al.* 1999. *J. Immunol.* 162:5917. (IP)
2. Sentman CL, *et al.* 1989. *Hybridoma* 8:605. (IP)
3. Koo GC, *et al.* 1984. *Hybridoma* 3:301. (Cyt)
4. Sentman CL, *et al.* 1989. *J. Immunol.* 142:1847. (Deplete)
5. Koo GC, *et al.* 1986. *J. Immunol.* 137:3742. (Deplete)
6. Karlhofer FM, *et al.* 1991. *J. Immunol.* 146:3662.
7. Kung SK, *et al.* 1999. *J. Immunol.* 162:5876. (Block)
8. Reichlin A, *et al.* 1998. *Immunol. Cell Biol.* 76:143.
9. Drobyski W, *et al.* 1996. *Blood* 87:5355. (Deplete)
10. Andoniou CE, *et al.* 2005. *Nat. Immunol.* 6:1011. (Deplete)
11. Kanwar JR, et al. 2001. J. Natl. Cancer Inst. 93:1541. (IHC, IF)
12. Kroemer A, *et al.* 2008. *J. Immunol.* 180:7818. PubMed
13. Kim JY, *et al.* 2009. *Exp Mol Med.* 30:288. PubMed
14. Bankoti J, *et al.* 2010. *Toxicol. Sci.* 115:422. (FC) PubMed
15. Lee H, *et al.* 2014. *Invest Ophthalmol Vis Sci.* 55:2885. PubMed

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Description:

NK-1.1 surface antigen, also known as CD161b/CD161c and Ly-55, is encoded by the NKR-P1B/NKR-P1C gene. It is expressed on NK cells and NK-T cells in some mouse strains, including C57BL/6, FVB/N, and NZB, but not AKR, BALB/c, CBA/J, C3H, DBA/1, DBA/2, NOD, SJL, and 129. Expression of NKR-P1C antigen has been correlated with lysis of tumor cells *in vitro* and rejection of bone marrow allografts *in vivo*. NK-1.1 has also been shown to play a role in NK cell activation, IFN-γ production, and cytotoxic granule release. NK-1.1 and DX5 are commonly used as mouse NK cell markers.

Antigen References:

1. Lanier LL. 1997. *Immunity* 6:371.
2. Yokoyama WM, *et al.* 1993. *Ann. Rev. Immunol.* 11:613.
3. Koo GC, *et al.* 1986. *J. Immunol.* 137:3742.
4. Giorda R, *et al.* 1991. *J. Immunol.<*