SONY

Product Data Sheet

Alexa Fluor® 647 anti-human Perforin

Catalog # / Size: 2140550 / 100 tests
2140545 / 25 tests

Clone: dG9

Isotype: Mouse IgG2b, κ

Immunogen: Purified granules from the human lymphoma cell line

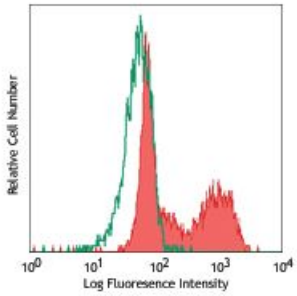
Reactivity: Human, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.

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

Workshop Number: IV N816

Concentration: Lot-specific



Human peripheral blood mononuclear cells intracellularly stained with DG9 Alexa Fluor® 647

Applications:

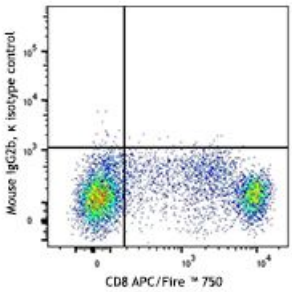
Applications: Immunofluorescence Microscopy, Intracellular Staining for Flow Cytometry

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

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.

Application Notes: Clone dG9 primarily recognizes perforin associated with cytotoxic granules[9]. Additional reported applications (for the relevant formats) include: immunoprecipitation, intracellular flow cytometric analysis and immunofluorescence microscopy[5,7], and immunohistochemical staining of acetone-fixed frozen tissue sections and formalin-fixed paraffin-embedded tissue sections[1,4].

Does not cross-react with mouse[1].



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Application References:

1. Hameed A, *et al.* 1992. *Am. J. Pathol.* 140:1025. (IHC)
2. Schaerli P, *et al.* 2004. *J. Exp. Med.* 199:1265.
3. Watanabe N, *et al.* 1997. *Blood* 90:3662.
4. Mauad T, *et al.* 2004. *Pediatr. Pulmonol.* 38:233. (IHC)
5. Barrat FJ, *et al.* 1999. *P. Natl. Acad. Sci. USA* 96:8645. (IF)
6. Chen H, *et al.* 2005. *J. Immunol.* 175:591.
7. Bryceson YT, *et al.* 2007. *Blood* doi:10.1182/blood-2007-02-074468. (IF)
8. Wood SM, *et al.* 2009. *Blood* 114:4117. PubMed
9. Makedonas G, *et al.* 2010. *PLoS Pathog.* 6:e1000798.

Description: Perforin is a 70 kD cytolytic protein that is expressed in the cytoplasmic granules of cytotoxic T lymphocytes (CTLs) and natural killer (NK) cells. Perforin is one of the major effector molecules used by cytotoxic T cells and NK cells to mediate targeted cell lysis.

Antigen References:

1. Lieberman J. 2003. *Nat. Rev. Immunol.* 3:361.
2. Trapani J, *et al.* 2002. *Nat. Rev. Immunol.* 2:735.

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