SONY

Product Data Sheet

Brilliant Violet 711® anti-human Perforin

Catalog # / Size: 2140645 / 25 tests
2140650 / 100 tests

Clone: dG9

Isotype: Mouse IgG2b, κ

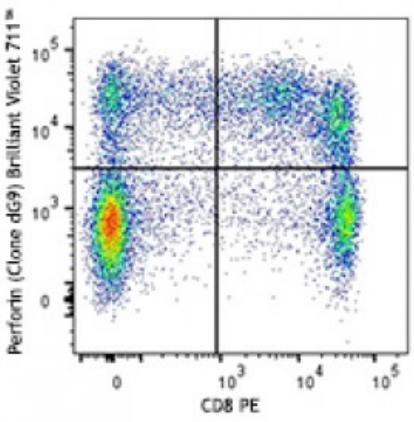
Immunogen: Purified granules from the human lymphoma cell line

Reactivity: Human

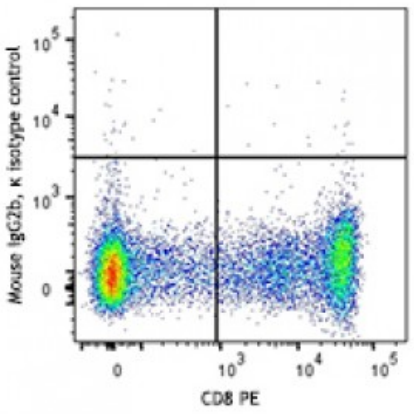
Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 711™ and unconjugated antibody.

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

Concentration: 0.2



Human peripheral blood lymphocytes were surface stained with CD8 PE and then intracellularly stained with anti-human Perforin (clone dG9) Brilliant Violet 711™ (top), or mouse IgG2b, κ Brilliant Violet 711™ isotype control (bottom).



Applications:

Applications: 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 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 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 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 711™ is a trademark of Sirigen Group Ltd.

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 mouse¹.

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.