SONY

Product Data Sheet

Brilliant Violet 605™ anti-human CD69

Catalog # / Size: 2154690 / 100 tests
2154685 / 25 tests

Clone: FN50

Isotype: Mouse IgG1, κ

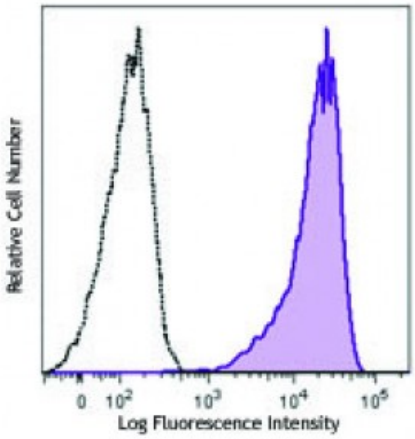
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 605™ and unconjugated antibody.

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

Workshop Number: IV A91

Concentration: Lot-specific



PMA+ ionomycin-stimulated (6 hours) human peripheral blood lymphocytes were stained with CD69 (clone FN50) Brilliant Violet 605™ (filled histogram) or mouse IgG1, κ Brilliant Violet 605™ isotype control (open histogram).

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, 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 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 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 605™ is a trademark of Sirigen Group Ltd.

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Application Notes: Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections2 and immunofluorescence microscopy3.

Application References:

1. Knapp WB, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York.
2. Sakkas LI, *et al.* 1998. *Clin. and Diag. Lab. Immunol.* 5:430. (IHC)
3. Kim JR, *et al.* 2005. *BMC Immunol.* 6:3. (IF)
4. Verjans GM, *et al.* 2007. *P. Natl. Acad. Sci. USA* 104:3496.
5. Lu H, *et al.* 2009. *Toxicol Sci.* 112:363. (FC) PubMed

Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com

6. Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. (FC) PubMed
7. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
8. Tsai CY, *et al.* 2015. *J Immunol.* 194:3890. PubMed

Description: CD69 is a 27-33 kD type II transmembrane protein also known as activation inducer molecule (AIM), very early activation antigen (VEA), and MLR3. It is a member of the C-type lectin family, expressed as a disulfide-linked homodimer. Other members of this receptor family include NKG2, NKR-P1 CD94, and Ly49. CD69 is transiently expressed on activated leukocytes including T cells, thymocytes, B cells, NK cells, neutrophils, and eosinophils. CD69 is constitutively expressed by a subset of medullary mature thymocytes, platelets, mantle B cells, and certain $CD4^+$ T cells in germinal centers of normal lymph nodes. CD69 is involved in early events of lymphocyte, monocyte, and platelet activation, and has a functional role in redirected lysis mediated by activated NK cells.

Antigen References:

1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Testi R, *et al.* 1994. *Immunol. Today* 15:479.