SONY

# Product Data Sheet

## Brilliant Violet 785™ anti-human CD69

**Catalog # / Size:** 2154655 / 25 tests
2154660 / 100 tests

**Clone:** FN50

**Isotype:** Mouse IgG1, κ

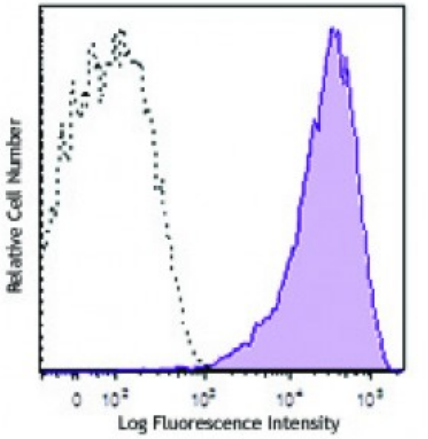
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 785™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 785™ 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




Human peripheral blood lymphocytes were stimulated with PMA + ionomycin for 6 hours and then stained with CD69 (clone FN50) Brilliant Violet 785™ (filled histogram) or mouse IgG1, κ Brilliant Violet 785™ 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 785™ excites at 405 nm and emits at 785 nm. The bandpass filter 780/60 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 785™ 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.


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5. Lu H, *et al.* 2009. *Toxicol Sci.* 112:363. (FC) PubMed
6. Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. (FC) PubMed
7. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)

**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.