

## Brilliant Violet 570™ anti-human CD69 Antibody

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| <b>Catalog# / Size</b>   | 310981 / 25 tests<br>310982 / 100 tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Clone</b>             | FN50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Regulatory Status</b> | RUO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Workshop</b>          | IV A91                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Other Names</b>       | Very Early Activation Antigen (VEA), Activation inducer molecule (AIM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Isotype</b>           | Mouse IgG1, $\kappa$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>       | 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 <sup>+</sup> 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. |

### Product Details

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| <b>Verified Reactivity</b>    | Human                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Reported Reactivity</b>    | African Green, Baboon, Chimpanzee, Cynomolgus, Pigtailed Macaque, Rhesus                                                                                                                                                                                                                                                                                                                                  |
| <b>Antibody Type</b>          | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Host Species</b>           | Mouse                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Formulation</b>            | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)                                                                                                                                                                                                                                                                                                                   |
| <b>Preparation</b>            | The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 570™ under optimal conditions.                                                                                                                                                                                                                                                                                  |
| <b>Concentration</b>          | Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our <a href="#">Certificate of Analysis</a> online tool.)                                                                                                                                                                                                                                               |
| <b>Storage &amp; Handling</b> | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>                                                                                                                                                                                                                                                               |
| <b>Application</b>            | <a href="#">FC - Quality tested</a>                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Recommended Usage</b>      | Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ L per million cells in 100 $\mu$ L staining volume or 5 $\mu$ L per 100 $\mu$ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. |

Brilliant Violet 570™ excites at 405 nm and emits at 570 nm. The bandpass filter 585/42 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 570™ is a trademark of Sirigen Group Ltd.

[Learn more about Brilliant Violet™.](#)

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|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Excitation Laser</b>                                                     | Violet Laser (405 nm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Application Notes</b>                                                    | Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections <sup>2</sup> , immunofluorescence microscopy <sup>3</sup> , and spatial biology (IBEX) <sup>8,9</sup> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Application References</b><br>(PubMed link indicates BioLegend citation) | <ol style="list-style-type: none"><li>1. Knapp WB, <i>et al.</i> 1989. Leucocyte Typing IV. Oxford University Press. New York.</li><li>2. Sakkas LI, <i>et al.</i> 1998. <i>Clin. and Diag. Lab. Immunol.</i> 5:430. (IHC)</li><li>3. Kim JR, <i>et al.</i> 2005. <i>BMC Immunol.</i> 6:3. (IF)</li><li>4. Verjans GM, <i>et al.</i> 2007. <i>P. Natl. Acad. Sci. USA</i> 104:3496.</li><li>5. Lu H, <i>et al.</i> 2009. <i>Toxicol Sci.</i> 112:363. (FC) <a href="#">PubMed</a></li><li>6. Thakral D, <i>et al.</i> 2008. <i>J. Immunol.</i> 180:7431. (FC) <a href="#">PubMed</a></li><li>7. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC)</li><li>8. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA.</i> 117:33455-33465. (SB) <a href="#">PubMed</a></li><li>9. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) <a href="#">PubMed</a></li></ol> |
| <b>RRID</b>                                                                 | AB_3717152 (BioLegend Cat. No. 310981)<br>AB_3717152 (BioLegend Cat. No. 310982)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Antigen Details

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|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Structure</b>          | C-type lectin, type II glycoprotein, 28/32 kD                                                                                                                                                                          |
| <b>Distribution</b>       | Activated T cells, B cells, NK cells, granulocytes, thymocytes, platelets, Langerhans cells                                                                                                                            |
| <b>Function</b>           | Lymphocyte, monocyte, and platelet activation, NK cell killing                                                                                                                                                         |
| <b>Cell Type</b>          | B cells, Granulocytes, Langerhans cells, NK cells, Platelets, T cells, Thymocytes, Tregs                                                                                                                               |
| <b>Biology Area</b>       | Costimulatory Molecules, Immunology                                                                                                                                                                                    |
| <b>Molecular Family</b>   | CD Molecules                                                                                                                                                                                                           |
| <b>Antigen References</b> | <ol style="list-style-type: none"><li>1. Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.</li><li>2. Testi R, <i>et al.</i> 1994. <i>Immunol. Today</i> 15:479.</li></ol> |
| <b>Gene ID</b>            | <a href="#">969</a>                                                                                                                                                                                                    |

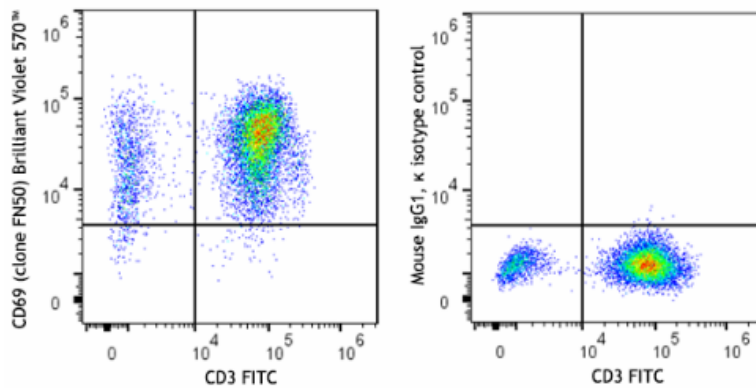
## Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Spark YG™ 581 anti-human CD69, TotalSeq™-D0146 anti-human CD69, APC anti-human CD69, PE anti-human CD69, Spark Blue™ 550 anti-human CD69, Spark Red™ 718 anti-human CD69, PE/Fire™ 810 anti-human CD69, GMP PE anti-human CD69, PE/Fire™ 744 anti-human CD69, PE/Dazzle™ 594 anti-human CD69, Brilliant Violet 711™ anti-human CD69, APC/Fire™ 750 anti-human CD69, PerCP/Cyanine5.5 anti-human CD69, PerCP anti-human CD69, Brilliant Violet 421™ anti-human CD69, Brilliant Violet 650™ anti-human CD69, Brilliant Violet 510™ anti-human CD69, Brilliant Violet 570™ anti-human CD69, StarBright UltraViolet 740 anti-human CD69, FITC anti-human CD69, PE/Cyanine7 anti-human CD69, Spark PLUS V475™ anti-human CD69 Antibody, Alexa Fluor® 700 anti-human CD69, Biotin anti-human CD69, Purified anti-human CD69, PE/Cyanine5 anti-human CD69, KIRAVIA Blue 520™ anti-human CD69, Spark NIR™ 685 anti-human CD69 Antibody, Brilliant Violet 785™ anti-human CD69, Spark PLUS UV395™ anti-human CD69, Spark Blue™ 574 anti-human CD69 (Flexi-Fluor™), GMP APC anti-human CD69, TotalSeq™-A0146 anti-human CD69, TotalSeq™-C0146 anti-human CD69, Brilliant Violet 605™ anti-human CD69, Purified anti-human CD69 (Maxpar® Ready), Spark YG™ 593 anti-human CD69 (Flexi-Fluor™) Antibody, Spark UV™ 387 anti-human CD69 (Flexi-Fluor™), PerCP/Fire™ 806 anti-human CD69 Antibody, Alexa Fluor® 488 anti-human CD69, Alexa Fluor® 647 anti-human CD69, Pacific Blue™ anti-human CD69, TotalSeq™-B0146 anti-human CD69, Brilliant Violet 750™ anti-human CD69, APC/Cyanine7 anti-human CD69, PE/Fire™ 640 anti-human CD69

## Product Data



PMA+ionomycin stimulated (6 hours) human peripheral blood lymphocytes were stained with anti-human CD3 (clone UCHT1) FITC and anti-human CD69 (clone FN50) Brilliant Violet 570™ (left) or mouse IgG1, κ Brilliant Violet 570™ isotype control (right).

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