

## Pacific Blue™ anti-human CD69 Antibody

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|--------------------------|---|
| <b>Catalog# / Size</b>   | 310919 / 25 µg<br>310920 / 100 µg   |
| <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, κ   |
| <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.  |
| <b>Preparation</b>            | The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions.  |
| <b>Concentration</b>          | 0.5 mg/ml  |
| <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>      | <p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a>. The suggested use of this reagent is ≤ 1.0 µg per 10<sup>6</sup> cells in 100 µl volume or 100 µl of whole blood. It is highly recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.</p> <p>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p><a href="#">View full statement regarding label licenses</a></p> |
| <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> | 1. Knapp WB, <i>et al.</i> 1989. Leucocyte Typing IV. Oxford University Press. New York.   |

(PubMed link indicates BioLegend citation)

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](#)
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. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
9. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

#### Product Citations

1. Howson LJ, *et al.* 2018. *Nat Commun.* 9:253. [PubMed](#)
2. Rodriguez-García A, *et al.* 2020. *Mol Ther.* 28:548. [PubMed](#)
3. Panciera T, *et al.* 2016. *Cell Stem Cell.* 19:725-737. [PubMed](#)
4. Lee JM, *et al.* 2022. *Lupus Sci Med.* 9:. [PubMed](#)
5. Jan M, *et al.* 2021. *Sci Transl Med.* 13:. [PubMed](#)
6. Francescone R, *et al.* 2020. *Cancer Discovery.* 11(2):446-479. [PubMed](#)
7. Verma K, *et al.* 2017. *PLoS One.* 10.1371/journal.pone.0183828. [PubMed](#)
8. Forster F, *et al.* 2014. *J Immunol.* 192:771. [PubMed](#)
9. Kathamuthu GR, *et al.* 2021. *Front Cell Infect Microbiol.* 11:756854. [PubMed](#)
10. Chen EW, *et al.* 2019. *Front Immunol.* 10:1718. [PubMed](#)
11. Tsai C, *et al.* 2015. *J Immunol.* 194:3890. [PubMed](#)

#### RRID

AB\_493666 (BioLegend Cat. No. 310919)  
AB\_493667 (BioLegend Cat. No. 310920)

## 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> | 1. Schlossman S, <i>et al.</i> Eds. 1995. <i>Leucocyte Typing V.</i> Oxford University Press. New York.<br>2. Testi R, <i>et al.</i> 1994. <i>Immunol. Today</i> 15:479. |
| <b>Gene ID</b>            | <a href="#">969</a>  |

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

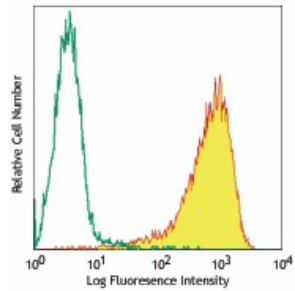
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Purified anti-human CD69, FITC anti-human CD69, PE anti-human CD69, PE/Cyanine5 anti-human CD69, APC anti-human CD69, APC/Cyanine7 anti-human CD69, PE/Cyanine7 anti-human CD69, Alexa Fluor® 488 anti-human CD69, Alexa Fluor® 647 anti-human CD69, Pacific Blue™ anti-human CD69, Alexa Fluor® 700 anti-human CD69, Biotin anti-human CD69, PerCP/Cyanine5.5 anti-human CD69, PerCP anti-human CD69, Brilliant Violet 421™ anti-human CD69, Brilliant Violet 785™ anti-human CD69, Brilliant Violet 650™ anti-human CD69, Brilliant Violet 510™ anti-human CD69, Brilliant Violet 605™ anti-human CD69, Purified anti-human CD69 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD69, Brilliant Violet 711™ anti-human CD69, APC/Fire™ 750 anti-human CD69, TotalSeq™-A0146 anti-human CD69, TotalSeq™-B0146 anti-human CD69, TotalSeq™-C0146 anti-human CD69, Brilliant Violet 750™ anti-human CD69, KIRAVIA Blue 520™ anti-human CD69, Spark NIR™ 685 anti-human CD69 Antibody, PE/Fire™ 640 anti-human CD69, Spark YG™ 581 anti-human CD69, TotalSeq™-D0146 anti-human CD69, Spark Blue™ 550 anti-human CD69

## Product Data

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PMA+ionomycin-stimulated human peripheral blood mononuclear cells (6 hours) stained with FN50 Pacific Blue™



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