

## Brilliant Violet 711™ anti-human CD69 Antibody

<b>Catalog# / Size</b>	310943 / 25 tests 310944 / 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, 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 and BSA (origin USA).
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.  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. <b>Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.</b> Refer to your instrument manual or manufacturer for support. Brilliant Violet 711™ is a trademark of Sirigen Group Ltd.

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

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<b>Excitation Laser</b>	Violet Laser (405 nm)
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<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>	<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>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Weisberg SP, <i>et al.</i> 2020. <i>Cell Reports.</i> 29(12):3916-3932.e5.. <a href="#">PubMed</a></li> <li>2. Szabo PA, <i>et al.</i> 2021. <i>Immunity.</i> 54(4):797-814.e6. <a href="#">PubMed</a></li> <li>3. Verma A, <i>et al.</i> 2021. <i>Cell Rep.</i> 37:109942. <a href="#">PubMed</a></li> <li>4. Lam AJ, <i>et al.</i> 2021. <i>Cell Reports.</i> 36(5):109494. <a href="#">PubMed</a></li> <li>5. Poon MML, <i>et al.</i> 2021. <i>Cell Rep.</i> 37:110071. <a href="#">PubMed</a></li> <li>6. Sagebiel AF, <i>et al.</i> 2019. <i>Nat Commun.</i> 10:975. <a href="#">PubMed</a></li> </ol>
<b>RRID</b>	<p>AB_2566465 (BioLegend Cat. No. 310943)</p> <p>AB_2566466 (BioLegend Cat. No. 310944)</p>

## 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

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[Cell Surface Flow Cytometry Staining Protocol](#)

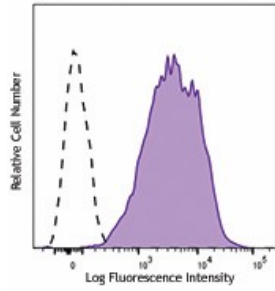
## Other Formats

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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 (six hours) human peripheral blood lymphocytes were stained with CD69 (clone FN50) Brilliant Violet 711™ (filled histogram) or mouse IgG1, κ™ isotype control (open histogram).

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