

Brilliant Violet 605™ anti-human CD69 Antibody

Catalog# / Size	310937 / 25 tests 310938 / 100 tests
Clone	FN50
Regulatory Status	RUO
Workshop	IV A91
Other Names	Very Early Activation Antigen (VEA), Activation inducer molecule (AIM)
Isotype	Mouse IgG1, κ
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.

Product Details

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Chimpanzee, Cynomolgus, Pigtailed Macaque, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. 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.

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

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Excitation Laser	Violet Laser (405 nm)
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Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections ² , immunofluorescence microscopy ³ , and spatial biology (IBEX) ^{8,9} .
Application References	<ol style="list-style-type: none"> 1. Knapp WB, <i>et al.</i> 1989. Leucocyte Typing IV. Oxford University Press. New York. 2. Sakkas LI, <i>et al.</i> 1998. <i>Clin. and Diag. Lab. Immunol.</i> 5:430. (IHC) 3. Kim JR, <i>et al.</i> 2005. <i>BMC Immunol.</i> 6:3. (IF) 4. Verjans GM, <i>et al.</i> 2007. <i>P. Natl. Acad. Sci. USA</i> 104:3496. 5. Lu H, <i>et al.</i> 2009. <i>Toxicol Sci.</i> 112:363. (FC) PubMed 6. Thakral D, <i>et al.</i> 2008. <i>J. Immunol.</i> 180:7431. (FC) PubMed 7. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC) 8. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA.</i> 117:33455-33465. (SB) PubMed 9. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) PubMed
Product Citations	<ol style="list-style-type: none"> 1. Apostolidis SA, <i>et al.</i> 2021. <i>Nat Med.</i> 27:1990. PubMed 2. Muliaditan T, <i>et al.</i> 2021. <i>Cell Rep Med.</i> 2:100457. PubMed 3. Swadling L, <i>et al.</i> 2020. <i>Cell Rep.</i> 30:687. PubMed 4. Hagan T, <i>et al.</i> 2020. <i>Cell.</i> 178(6):1313-1328.e13. PubMed 5. Haruna M, <i>et al.</i> 2020. <i>Biol Pharm Bull.</i> 43:399. PubMed 6. Richert-Spuhler LE, <i>et al.</i> 2021. <i>Cell Reports Medicine.</i> 2(6):100322. PubMed 7. Painter MM, <i>et al.</i> 2021. <i>Immunity.</i> 54:2133. PubMed 8. Ackerley CG, <i>et al.</i> 2022. <i>Front Immunol.</i> 13:972170. PubMed 9. Rajamanickam V, <i>et al.</i> 2021. <i>Cancer Immunol Res.</i> 9:602. PubMed 10. Zabaleta N, <i>et al.</i> 2021. <i>Cell Host Microbe.</i> .: PubMed 11. Cheng Y, <i>et al.</i> 2021. <i>Immunity.</i> 54(8):1825-1840.e7. PubMed 12. Roberts E, <i>et al.</i> 2016. <i>PLoS One.</i> 11:e0168488. PubMed 13. Hunter S, <i>et al.</i> 2018. <i>J Hepatol.</i> 69:654. PubMed 14. Sagebiel AF, <i>et al.</i> 2019. <i>Nat Commun.</i> 10:975. PubMed 15. Singh S, <i>et al.</i> 2020. <i>Cell Reports Medicine.</i> 1(3):100033. PubMed 16. Zhang B, <i>et al.</i> 2020. <i>Cell Chemical Biology.</i> 28(1):60-69.e7. PubMed 17. Lederer K, <i>et al.</i> 2022. <i>Cell.</i> . PubMed 18. Duhon R, <i>et al.</i> 2021. <i>Nat Commun.</i> 12:1047. PubMed 19. Wilson TL, <i>et al.</i> 2022. <i>Cancer Discov.</i> 12:2098. PubMed 20. Tsai C, <i>et al.</i> 2015. <i>J Immunol.</i> 194:3890. PubMed 21. Mysore V, <i>et al.</i> 2021. <i>Med (N Y).</i> 2:1050. PubMed
RRID	<p>AB_2562306 (BioLegend Cat. No. 310937)</p> <p>AB_2562307 (BioLegend Cat. No. 310938)</p>

Antigen Details

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

Related Protocols

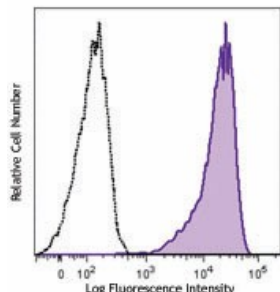
[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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



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).

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