

PE/Cyanine7 anti-human CD69 Antibody

Catalog# / Size	310911 / 25 tests 310912 / 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 PE/Cyanine7 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 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
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} .
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.
Application References	<ol style="list-style-type: none"> Knapp WB, <i>et al.</i> 1989. Leucocyte Typing IV. Oxford University Press. New York. Sakkas LI, <i>et al.</i> 1998. <i>Clin. and Diag. Lab. Immunol.</i> 5:430. (IHC) Kim JR, <i>et al.</i> 2005. <i>BMC Immunol.</i> 6:3. (IF) Verjans GM, <i>et al.</i> 2007. <i>P. Natl. Acad. Sci. USA</i> 104:3496.
(PubMed link indicates BioLegend citation)	

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. Balachandran H, *et al.* 2022. *Cell Rep.* 38:110345. [PubMed](#)
2. Wang H, *et al.* 2022. *Front Immunol.* 13:852436. [PubMed](#)
3. Hall J, *et al.* 2014. *Brain Behav Immun.* 36:156. [PubMed](#)
4. Larsen SE, *et al.* 2021. *Sci Rep.* 11:9040. [PubMed](#)
5. Pachnio A, *et al.* 2016. *PLoS Pathog.* 12: 1005832. [PubMed](#)
6. Knippenberg S, *et al.* 2011. *J Neuroimmunol.* 28:239. [PubMed](#)
7. Ophir M, *et al.* 2013. *J Cell Biol.* 203:1021. [PubMed](#)
8. Presicce P, *et al.* 2011. *PLoS One.* 6:e28118. [PubMed](#)
9. Maritz MF, *et al.* 2018. *PLoS One.* 13:e0196043. [PubMed](#)
10. Gullà A, *et al.* 2021. *Cancer Discov.* . [PubMed](#)
11. Jürchott K, *et al.* 2016. *PLoS One.* 11: 0150812. [PubMed](#)
12. Smolders J, *et al.* 2010. *PLoS One.* 5:e15235. [PubMed](#)
13. Ray RM, *et al.* 2019. *Sci Rep.* 9:4334. [PubMed](#)
14. Mudd PA, *et al.* 2022. *Cell.* 185:603. [PubMed](#)
15. Valestrand L, *et al.* 2022. *Am J Pathol.* . [PubMed](#)
16. Vadrevu KM, *et al.* 2022. *Sci Rep.* 12:12038. [PubMed](#)
17. Lozano-Ojalvo D, *et al.* 2021. *Cell Rep.* 36:109570. [PubMed](#)
18. Lee-Chang C, *et al.* 2021. *J Exp Med.* 218:. [PubMed](#)
19. Horwitz JA, *et al.* 2017. *Cell.* 170:637. [PubMed](#)
20. Phadnis-Moghe A, *et al.* 2015. *Toxicol Sci.* 144:39. [PubMed](#)
21. Pham TNQ, *et al.* 2020. *Cell Reports.* 29(9):2770-2782.e5.. [PubMed](#)
22. Gullà A, *et al.* 2021. *Cancer Discov.* 2:468. [PubMed](#)
23. Csomós K, *et al.* 2022. *Nat Immunol.* 23:1256. [PubMed](#)
24. Inui M, *et al.* 2015. *Int Immunol.* 27: 345 - 355. [PubMed](#)
25. Ormonde JVS, *et al.* 2018. *J Immunol.* 201:3431. [PubMed](#)
26. Assen S, *et al.* 2011. *Clin Immunol.* 141:161. [PubMed](#)
27. Lu H, *et al.* 2009. *Toxicol Sci.* 112:363. [PubMed](#)
28. Ribot J, *et al.* 2014. *J Immunol.* 192:2237. [PubMed](#)

RRID

AB_314846 (BioLegend Cat. No. 310911)
 AB_314847 (BioLegend Cat. No. 310912)

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

Related Protocols

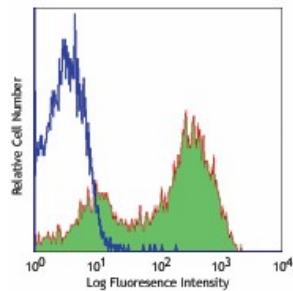
[Cell Surface Flow Cytometry Staining Protocol](#)

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 activated human peripheral blood lymphocytes stained with FN50 PE/Cyanine7

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587