Brilliant Violet 421™ anti-mouse CD69 Antibody

Catalog# / Size	104527 / 125 µL 104545 / 50 µg 104528 / 500 µL
Clone	H1.2F3
Regulatory Status	RUO
Other Names	Very Early Activation Antigen (VEA), AIM, EA1, MLR3, gp34/28
Isotype	Armenian Hamster IgG
Description	CD69 is a 60 kD type II membrane protein composed of a 27/33 kD disulfide-linked homodimer, also known as Very Early Activation Antigen (VEA), AIM, EA1, MLR3, and gp34/28. It is expressed on a subset of thymocytes and platelets. CD69 is rapidly induced on activated T and B cells, neutrophils, and NK cells. It is a C-type lectin, closely related to the NKR-P1 and Ly-49 NK cell activation molecules. CD69 is involved in the early events of cell activation and thymocyte positive selection.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	Mouse dendritic epidermal T cell line Y245
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 421™ under optimal conditions.
Concentration	µg size: 0.2 mg/mL µL size: 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 using the µl size, 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. For flow cytometric staining using the µg size, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 nm)
Application Notes	The H1.2F3 antibody has been reported to augment T cell activation. Additional reported applications (for the relevant formats) include: *in vitro* T cell and NK cell activation[1-3], immunohistochemistry[4,5], and immunoprecipitation[1].

This antibody has been characterized in the literature as containing a lambda (?) light chain.

Application References

(PubMed link indicates BioLegend citation)

1. Yokoyama WM, *et al.* 1988. *J. Immunol.* 141:369. (IP)
2. Sobel ES, *et al.* 1993. *J. Immunol.* 150:673.
3. Karlhofer FM, *et al.* 1991. *J. Immunol.* 146:3662.
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6. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
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Product Citations

1. Mackel JJ, *et al.* 2022. Front Cell Infect Microbiol. 12:974175. PubMed
2. Li X, *et al.* 2022. Nat Commun. 13:2794. PubMed
3. Van Den Eeckhout B, *et al.* 2020. NPJ Vaccines. 5:64. PubMed
4. Barberio AE, *et al.* 2020. ACS Nano. 14:11238. PubMed
5. Montes de Oca R, *et al.* 2021. Mol Cancer Ther. 20:1941. PubMed
6. Yu S, *et al.* 2016. Mol Ther. 10.1038/mt.2016.175. PubMed
7. Bradley KC, *et al.* 2019. Cell Rep. 28:245. PubMed
8. Kim S, *et al.* 2021. Elife. 10:. PubMed
9. Chandana M, *et al.* 2022. Nat Commun. 13:4028. PubMed
10. Ni J, *et al.* 2020. Immunity. 52(6):1075-1087.e8. PubMed
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15. Fan MY *et al.* 2018. Cell reports. 25(5):1204-1213 . PubMed
16. Ren Y, *et al.* 2021. Nat Commun. 12:5405. PubMed
17. Van Den Eeckhout B, *et al.* 2020. NPJ Vaccines. 0.252777778. PubMed
18. Srivastava S, *et al.* 2020. Cancer Cell. 39(2):193-208.e10. PubMed

RRID

AB_10900250 (BioLegend Cat. No. 104527)
AB_2686969 (BioLegend Cat. No. 104545)
AB_2562328 (BioLegend Cat. No. 104528)

Antigen Details

Structure	C-type lectin, 27/33 kD
Distribution	Activated T cells and B cells, NK cells, granulocytes, thymocytes, platelets
Function	Lymphocyte activation
Cell Type	B cells, Granulocytes, NK cells, Platelets, T cells, Thymocytes, Tregs
Biology Area	Costimulatory Molecules, Immunology, Innate Immunity
Molecular Family	CD Molecules

Antigen References

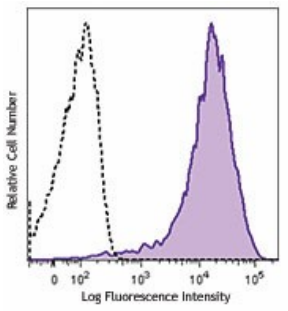
1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Testi R, *et al.* 1994. *Immunol. Today* 15:479.
3. Moretta A, *et al.* 1991. *J. Exp. Med.* 174:1393.
4. Yokoyama WM, *et al.* 1988. *J. Immunol.* 141:369.

Gene ID 12515

Other Formats

Biotin anti-mouse CD69, FITC anti-mouse CD69, PE anti-mouse CD69, PE/Cyanine5 anti-mouse CD69, Purified anti-mouse CD69, PE/Cyanine7 anti-mouse CD69, APC anti-mouse CD69, Alexa Fluor® 488 anti-mouse CD69, Alexa Fluor® 647 anti-mouse CD69, PerCP anti-mouse CD69, PerCP/Cyanine5.5 anti-mouse CD69, Pacific Blue™ anti-mouse CD69, Brilliant Violet 421™ anti-mouse CD69, APC/Cyanine7 anti-mouse CD69, Brilliant Violet 605™ anti-mouse CD69, Brilliant Violet 510™ anti-mouse CD69, Purified anti-mouse CD69 (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse CD69, Brilliant Violet 711™ anti-mouse CD69, Alexa Fluor® 700 anti-mouse CD69, Brilliant Violet 650™ anti-mouse CD69, Brilliant Violet 785™ anti-mouse CD69, TotalSeq™-A0197 anti-mouse CD69, APC/Fire™ 750 anti-mouse CD69, TotalSeq™-C0197 anti-mouse CD69, TotalSeq™-B0197 anti-mouse CD69, KIRAVIA Blue 520™ anti-mouse CD69, Spark NIR™ 685 anti-mouse CD69, Spark Red™ 718 anti-mouse CD69

Product Data



PMA+ionomycin-stimulated (6 hours) C57BL/6 mouse splenocytes were stained with CD69 (clone H1.2F3) Brilliant Violet 421™ (filled histogram) or Armenian hamster IgG Brilliant Violet 421™ isotype control (open histogram).

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