

## Brilliant Violet 421™ anti-mouse CD335 (NKp46) Antibody

<b>Catalog# / Size</b>	137611 / 125 µL 137612 / 50 µg
<b>Clone</b>	29A1.4
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	NKp46, NCR1
<b>Isotype</b>	Rat IgG2a, κ
<b>Description</b>	CD335, also known as NKp46, is a single-pass type I membrane protein of 46 kD. It belongs to the natural cytotoxicity receptor (NCR) family and contains two Ig-like (immunoglobulin-like) domains. It's expression is restricted to NK cells and a subset of NKT cells; it's not expressed in CD1d-restricted NKT cells. CD335 is a receptor for viral hemagglutinins and heparan sulfate proteoglycans and is involved in NK cell activation.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	NKP46-IgG1 Fc fusion protein
<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 421™ under optimal conditions.
<b>Concentration</b>	µg sizes: 0.2 mg/mL µL sizes: 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>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a>. For immunofluorescent staining using the µg size, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. For immunofluorescent 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. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>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.</p> <p><a href="#">Learn more about Brilliant Violet™.</a></p> <p>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.</p>
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunohistochemical staining of frozen tissue sections <sup>1,2</sup> and <i>in vitro</i> activation of NK cells <sup>1</sup> .
<b>Application References</b>	

**(PubMed link indicates BioLegend citation)**

1. Walzer T, *et al.* 2007. *P. Natl. Acad. Sci. USA* 104:3384. (FC, Activ)
2. Walzer T, *et al.* 2007. *Nat. Immunol.* 8:1337. (FC, Activ)
3. Guerriero JL, *et al.* 2011. *J. Immunol.* 186:3517. (IHC) [PubMed](#)

**Product Citations**

1. Burrack KS *et al.* 2018. *Immunity.* 48(4):760-772 . [PubMed](#)
2. LaMarche NM, *et al.* 2020. *Cell Metabolism.* 32(2):243-258.e6. [PubMed](#)
3. Huggins MA, *et al.* 2019. *Cell Rep.* 28:1729. [PubMed](#)
4. Maluski M, *et al.* 2019. *J Clin Invest.* 129:5108. [PubMed](#)
5. Kelsey E Sivick *et al.* 2018. *Cell reports.* 25(11):3074-3085 . [PubMed](#)
6. Alikhanyan K, *et al.* 2021. *Cancers (Basel).* 13:. [PubMed](#)
7. Kennedy EM, *et al.* 2022. *Nat Commun.* 13:5907. [PubMed](#)
8. Alikhanyan K, *et al.* 2020. *Immun Inflamm Dis.* 8:181. [PubMed](#)
9. Shen JZ, *et al.* 2020. *Cell.* 184(2):352-369.e23. [PubMed](#)
10. Kaya B, *et al.* 2020. *Cell Reports.* 32(5):107979. [PubMed](#)
11. Muthalagu N, *et al.* 2020. *Cancer Discov.* 1.022222222. [PubMed](#)
12. Goh W, *et al.* 2020. *Cell Rep.* 33:108285. [PubMed](#)
13. Martomo SA, *et al.* 2021. *Mol Cancer Ther.* 1.074305556. [PubMed](#)
14. Ponzetta A, *et al.* 2020. *Cell.* 178(2):346-360.e24.. [PubMed](#)
15. Kissiov DU, *et al.* 2022. *Elife.* 11:. [PubMed](#)
16. Wang X, *et al.* 2021. *Cell.* 184:5357. [PubMed](#)
17. Wagner AK, *et al.* 2022. *iScience.* 25:105137. [PubMed](#)
18. Theurich S *et al.* 2017. *Cell metabolism.* 26(1):171-184 . [PubMed](#)
19. Lai NY, *et al.* 2020. *Cell.* 180:33:00. [PubMed](#)

**RRID**

AB\_10915472 (BioLegend Cat. No. 137611)  
AB\_2563104 (BioLegend Cat. No. 137612)

## Antigen Details

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<b>Structure</b>	Single-pass type I membrane protein, 46 kD; belongs to the natural cytotoxicity receptor (NCR) family; contains 2 Ig-like (immunoglobulin-like) domains
<b>Distribution</b>	Mature and immature NK cells, subset of NKT cells, but not on CD1d-restricted NKT cells
<b>Function</b>	NK cells activation
<b>Ligand/Receptor</b>	Viral hemagglutinins, heparan sulfate proteoglycans
<b>Cell Type</b>	NK cells, NKT cells
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	1. Colucci F and Cilio CM. 2010. <i>Nat. Immunol.</i> 125:60. 2. Caligiuri MA. 2008. <i>Blood</i> 112:461. 3. Colonna M. 2009. <i>Immunity</i> 31:15.
<b>Gene ID</b>	<a href="#">17086</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

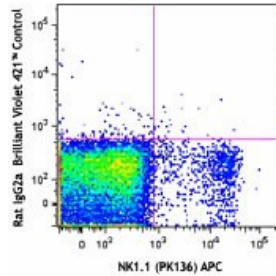
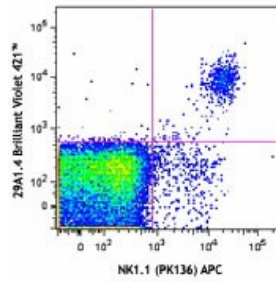
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Brilliant Violet 510™ anti-mouse CD335 (NKp46), Brilliant Violet 711™ anti-mouse CD335 (NKp46), PE anti-mouse CD335 (NKp46), PE/Cyanine7 anti-mouse CD335 (NKp46), Purified anti-mouse CD335 (NKp46), FITC anti-mouse CD335 (NKp46), APC anti-mouse CD335 (NKp46), PerCP/Cyanine5.5 anti-mouse CD335 (NKp46), Brilliant Violet 421™ anti-mouse CD335 (NKp46), Biotin anti-mouse CD335 (NKp46), Brilliant Violet 605™ anti-mouse CD335 (NKp46), Purified anti-mouse CD335 (NKp46) (Maxpar® Ready), Alexa Fluor® 647 anti-mouse CD335 (NKp46), PE/Dazzle™ 594 anti-mouse CD335 (NKp46), APC/Fire™ 750 anti-mouse CD335 (NKp46), Brilliant Violet 650™ anti-mouse CD335 (NKp46), TotalSeq™-A0184 anti-mouse CD335 (NKp46), Brilliant Violet 785™ anti-mouse CD335 (NKp46), Ultra-LEAF™ Purified anti-mouse CD335 (NKp46), TotalSeq™-B0184 anti-mouse CD335 (NKp46), TotalSeq™-C0184 anti-mouse CD335 (NKp46), APC/Cyanine7 anti-mouse CD335 (NKp46), PE/Cyanine5 anti-mouse CD335 (NKp46)

## Product Data

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C57BL/6 splenocytes stained with NK1.1 APC and NKp46 (clone 29A1.4) Brilliant Violet 421™ (top) or rat IgG2a Brilliant Violet 421™ isotype control (bottom).



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