

Brilliant Violet 711™ anti-mouse CD335 (NKp46) Antibody

Catalog# / Size	137621 / 50 µg
Clone	29A1.4
Regulatory Status	RUO
Other Names	NKp46, NCR1
Isotype	Rat IgG2a, κ
Description	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

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	NKP46-IgG1 Fc fusion protein
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 711™ under optimal conditions.
Concentration	0.2 mg/ml
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	<p>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 ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>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. 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 711™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</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>
Excitation Laser	Violet Laser (405 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of frozen tissue sections ^{1,2} and <i>in vitro</i> activation of NK cells ¹ .
Application References	1. Walzer T, <i>et al.</i> 2007. <i>P. Natl. Acad. Sci. USA</i> 104:3384. (FC, Activ)
(PubMed link indicates	2. Walzer T, <i>et al.</i> 2007. <i>Nat. Immunol.</i> 8:1337. (FC, Activ)

BioLegend citation)3. Guerriero JL, *et al.* 2011. *J. Immunol.* 186:3517. (IHC) [PubMed](#)**Product Citations**

1. Hofmann I, *et al.* 2022. *J Pharmacol Exp Ther.* Online ahead of print. [PubMed](#)
2. Sakai M, *et al.* 2020. *Immunity.* 51(4):655-670. [PubMed](#)
3. Lu SX, *et al.* 2021. *Cell.* . [PubMed](#)
4. Grizotte-Lake M, *et al.* 2018. *Immunity.* 49:1103. [PubMed](#)
5. Du X, *et al.* 2018. *Proc Natl Acad Sci U S A.* 115:E11731. [PubMed](#)
6. Du W, *et al.* 2021. *Mol Cancer Res.* 19:1412. [PubMed](#)
7. Crosse EI, *et al.* 2020. *Cell Stem Cell.* 27:822. [PubMed](#)
8. Goc J, *et al.* 2021. *Cell.* .: [PubMed](#)
9. Dammeijer F, *et al.* 2020. *Cancer Cell.* 38(5):685-700.e8. [PubMed](#)

RRID

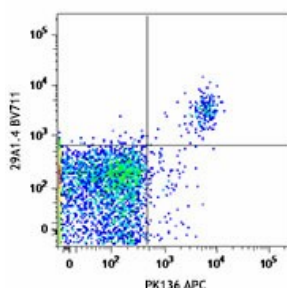
AB_2563289 (BioLegend Cat. No. 137621)

Antigen Details

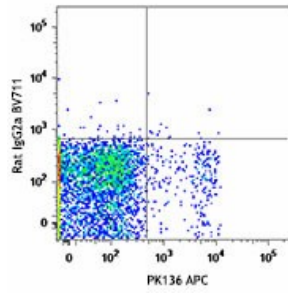
Structure	Single-pass type I membrane protein, 46 kD; belongs to the natural cytotoxicity receptor (NCR) family; contains 2 Ig-like (immunoglobulin-like) domains
Distribution	Mature and immature NK cells, subset of NKT cells, but not on CD1d-restricted NKT cells
Function	NK cells activation
Ligand/Receptor	Viral hemagglutinins, heparan sulfate proteoglycans
Cell Type	NK cells, NKT cells
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none"> 1. Colucci F and Cilio CM. 2010. <i>Nat. Immunol.</i> 12:560. 2. Caligiuri MA. 2008. <i>Blood</i> 112:461. 3. Colonna M. 2009. <i>Immunity</i> 31:15.
Gene ID	17086

Related Protocols[Cell Surface Flow Cytometry Staining Protocol](#)**Other Formats**

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

C57BL/6 splenocytes were stained with NK1.1 (clone PK136) APC and NKp46 (clone 29A1.4) Brilliant Violet 711™ (top) or rat IgG2a Brilliant Violet 711™ isotype control (bottom).



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