

Brilliant Violet 711™ anti-human CD304 (Neuropilin-1) Antibody

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| Catalog# / Size | 354533 / 25 tests 354534 / 100 tests |
| Clone | 12C2 |
| Regulatory Status | RUO |
| Other Names | BDCA-4 |
| Isotype | Mouse IgG2a, κ |
| Description | CD304, also known as neuropilin-1, BDCA-4 and VEGF165R, is a 140 kD type I transmembrane protein. Its extracellular region contains 2 CUB, 2 FV/FVIII, and one MAM domain; a soluble isoform is produced by alternative mRNA splicing. CD304 is involved in angiogenesis, neural development, and tumor metastasis. It's expressed by plasmacytoid dendritic cells, thymocytes, neurons, endothelium, and a subset of T _H 1 cells. CD304 is also expressed in several carcinomas, and a high expression of this molecule in prostate cancer correlates with a poor prognosis. |

Product Details

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| Verified Reactivity | Human |
| Antibody Type | Monoclonal |
| Host Species | Mouse |
| Immunogen | CD304-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 | 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 | <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 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 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) |
| RRID | AB_2876674 (BioLegend Cat. No. 354533) AB_2876674 (BioLegend Cat. No. 354534) |

Antigen Details

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| Structure | Type I transmembrane protein, 140 kD, 2 complement binding domains (CUB), 2 coagulation factor V/VIII homology domains (FV/FVIII), one meprin, A5, receptor tyrosine phosphatase domain (MAM) |
| Distribution | Plasmacytoid dendritic cells, thymocytes, subset of follicular helper T cells (T _{FH}), endothelial cells, neurons, some carcinomas |
| Function | Angiogenesis, neuronal development, tumor metastasis |
| Ligand/Receptor | VEGF165, semaphorin-3A |
| Cell Type | Dendritic cells, Endothelial cells, Neurons, Tfh, Thymocytes |
| Biology Area | Angiogenesis, Cell Adhesion, Cell Biology, Immunology, Innate Immunity, Neuroscience, Synaptic Biology |
| Molecular Family | Adhesion Molecules, CD Molecules |
| Antigen References | <ol style="list-style-type: none">1. Mizui M and Kikutani H. 2008. <i>Immunity</i> 28:302.2. Hamerlik P, et al. 2012. <i>J. Exp. Med.</i> 209:507.3. Karjalainen K, et al. 2011. <i>Blood</i> 117:920.4. Lepelletier Y, et al. 2007. <i>P. Natl. Acad. Sci. USA</i> 104:5545. |
| Gene ID | 8829 |

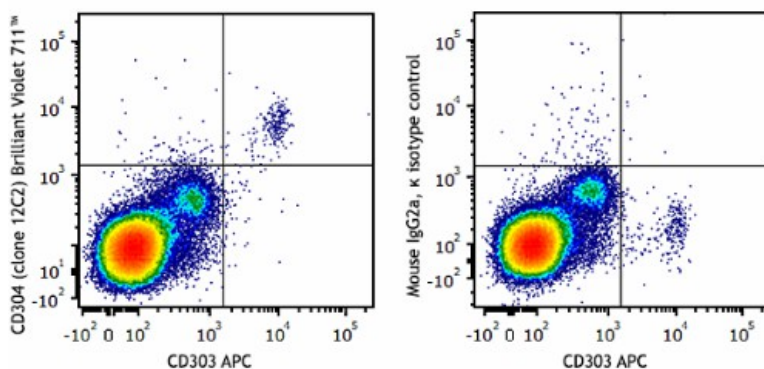
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human CD304 (Neuropilin-1), PE anti-human CD304 (Neuropilin-1), APC anti-human CD304 (Neuropilin-1), PE/Cyanine7 anti-human CD304 (Neuropilin-1), PerCP/Cyanine5.5 anti-human CD304 (Neuropilin-1), FITC anti-human CD304 (Neuropilin-1), Brilliant Violet 421™ anti-human CD304 (Neuropilin-1), Brilliant Violet 510™ anti-human CD304 (Neuropilin-1), Alexa Fluor® 647 anti-human CD304 (Neuropilin-1), Pacific Blue™ anti-human CD304 (Neuropilin-1), Biotin anti-human CD304 (Neuropilin-1), APC/Fire™ 750 anti-human CD304 (Neuropilin-1), TotalSeq™-A0406 anti-human CD304 (Neuropilin-1), TotalSeq™-C0406 anti-human CD304 (Neuropilin-1), TotalSeq™-B0406 anti-human CD304 (Neuropilin-1), Brilliant Violet 605™ anti-human CD304 (Neuropilin-1), Brilliant Violet 711™ anti-human CD304 (Neuropilin-1), TotalSeq™-D0406 anti-human CD304 (Neuropilin-1), PE/Dazzle™ 594 anti-human CD304 (Neuropilin-1), APC/Fire™ 810 anti-human CD304 (Neuropilin-1), PE/Fire™ 810 anti-human CD304 (Neuropilin-1)

Product Data



Human peripheral blood mononuclear cells were stained with CD303 APC and CD304 (clone 12C2) Brilliant Violet 711™ (left) or mouse IgG2a, κ Brilliant Violet 711™ isotype control (right). Data shown was gated on the lymphocyte and monocyte populations.

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