

PE anti-human CD304 (Neuropilin-1) Antibody

Catalog# / Size	354503 / 25 tests 354504 / 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

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 PE 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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Product Citations	<ol style="list-style-type: none">1. Argüello RJ, <i>et al.</i> 2020. Cell Metab. 32:1063. PubMed2. Soday L, <i>et al.</i> 2021. Frontiers in Immunology. 12:600056. PubMed3. Cignarella F <i>et al.</i> 2018. Cell metabolism. 27(6):1222-1235 . PubMed4. Leclerc M, <i>et al.</i> 2019. Nat Commun. 10:3345. PubMed5. Cillo AR, <i>et al.</i> 2021. Cell Rep Med. 2:100476. PubMed6. Congy-Jolivet N, <i>et al.</i> 2022. EBioMedicine. 80:104047. PubMed7. Leylek R, <i>et al.</i> 2020. Cell Rep. 32:108180. PubMed
RRID	AB_11219200 (BioLegend Cat. No. 354503) AB_11219194 (BioLegend Cat. No. 354504)

Antigen Details

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, <i>et al.</i> 2012. <i>J. Exp. Med.</i> 209:507. 3. Karjalainen K, <i>et al.</i> 2011. <i>Blood</i> 117:920. 4. Lepelletier Y, <i>et al.</i> 2007. <i>P. Natl. Acad. Sci. USA</i> 104:5545.
Gene ID	8829

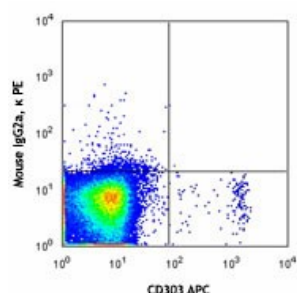
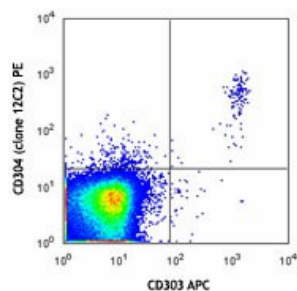
Related Protocols

[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) PE (top) or mouse IgG2a, κ PE isotype control (bottom). Data shown was gated on the lymphocyte and monocyte populations.

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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