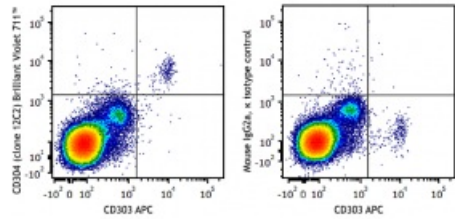


Brilliant Violet 711™ anti-human CD304 (Neuropilin-1)

Catalog # / 2372670 / 100 tests
Size: 2372665 / 25 tests
Clone: 12C2
Isotype: Mouse IgG2a, κ
Immunogen: CD304-Fc Fusion protein
Reactivity: Human
Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Workshop Number: IV 103
Concentration: Lot-specific



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.

Applications:

Applications: Flow Cytometry

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. It is recommended that the reagent be titrated for optimal performance for each application.

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.

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Application Notes: Additional reported applications (for the relevant formats) include: immunohistochemical staining of paraformaldehyde fixed frozen sections.⁴

- Application References:**
1. Chen K, *et al.* 2009. *Nat. Immunol.* 10:889.
 2. Lee CH, *et al.* 2005. *J. Exp. Med.* 203:63.
 3. Sutter JA, *et al.* 2008. *Clin. Immunol.* 126:282.
 4. Li H and Pauza CD. 2015. *Eur. J. Immunol.* 45:298. (IHC)

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_{FH} cells. CD304 is also expressed in several carcinomas, and a high expression of this molecule in prostate cancer correlates with a poor prognosis.

Antigen
References:

1. Mizui M and Kikutani H. 2008. *Immunity* 28:302.
2. Hamerlik P, et al. 2012. *J. Exp. Med.* 209:507.
3. Karjalainen K, et al. 2011. *Blood* 117:920.
4. Lepelletier Y, et al. 2007. *P. Natl. Acad. Sci. USA* 104:5545.