

Brilliant Violet 605™ anti-human CD304 (Neuropilin-1)

Catalog # / Size: 2372660 / 100 tests
2372655 / 25 tests

Clone: 12C2

Isotype: Mouse IgG2a, κ

Immunogen: CD304-Fc Fusion protein

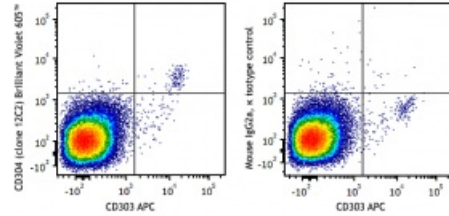
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)

Workshop Number: V S056

Concentration: Lot-specific



Human peripheral blood mononuclear cells were stained with CD303 APC and CD304 (clone 12C2) Brilliant Violet 605™ (left) or mouse IgG2a, κ Brilliant Violet 605™ 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 intracellular flow cytometry using our True-Phos™ Perm Buffer in Whole Blood Protocol. 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 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 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 605™ is a trademark of Sirigen Group Ltd.

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Application Notes: 3.2.3 recognizes a common epitope of NKR-1P1a (CD161a) and NKR-P1b (CD161b).

Application References: 1. Chambers W, et al. 1989. *J. Exp. Med.* 169:1373. (FC)

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.