SONY

Product Data Sheet

Brilliant Violet 421™ anti-mouse CD34

Catalog # / Size: 1196605 / 125 µl

Clone: MEC14.7

Isotype: Rat IgG2a, κ

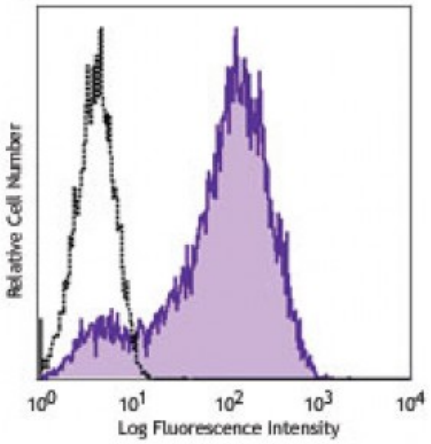
Immunogen: Cells transfected with mouse CD34

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 421™ and unconjugated antibody.

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

Concentration: Lot-specific



Mouse fibroblast cell line NIH/3T3 was stained with CD34 (clone MEC14.7) Brilliant Violet 421™ (filled histogram) or rat IgG2a, κ Brilliant Violet 421™ isotype control (open histogram).

Applications:

Applications: Immunofluorescence

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 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

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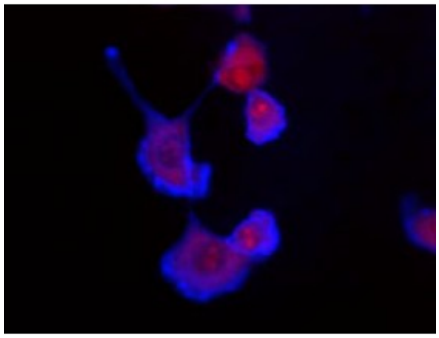

Mouse NIH/3T3 cells were fixed with 1% paraformaldehyde (PFA), and then stained with 1 microg/ml of CD34 (clone MEC14.7) Brilliant Violet 421™ (blue) for 4 hours at room temperature. Nuclei were counterstained with Propidium Iodide and are shown i

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Application Notes: The MEC14.7 antibody does not stain bone marrow cells like some other mouse CD34 antibodies, probably because the antibody recognizes a different epitope from other mAbs. Additional reported applications (for the relevant formats) include: immunoprecipitation, Western blotting[6], and immunohistochemistry of acetone-fixed frozen sections and paraffin-embedded sections[2,4,5,6].

Application References:

1. Garlanda C, *et al.* 1997. *Eur. J. Cell Biol.* 73:368. (FC)
2. Knowles HJ, *et al.* 2004. *Circ. Res.* 95:162. (IHC)
3. Trempus CS, *et al.* 2003. *J. Invest. Dermatol.* 120:501.
4. Winding B, *et al.* 2002. *Clin. Cancer Res.* 8:1932. (IHC)
5. Voswinckel R, *et al.* 2003. *Circ. Res.* 93:372. (IHC)
6. Kairaitis LK, *et al.* 2005. *Am. J. Physiol. Renal. Physiol.* 288:F198. (IHC, WB)
7. Ao A, *et al.* 2008. *P. Natl. Acad. Sci. USA* 105:7821. PubMed

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Description: CD34 is a highly glycosylated hematopoietic progenitor antigen. Two isoforms of CD34 have been reported to be generated by alternative splicing. This antigen is expressed on hematopoietic progenitors as well as on endothelial cells, brain, and testis. CD34 is thought to function as an adhesion molecule for early hematopoietic progenitors mediating the attachment of stem cells to extracellular matrix or stromal cells. CD34 is phosphorylated on serine residues by PKC.

Antigen References:

1. Garlanda C, *et al.* 1997. *Eur. J. Cell Biol.* 73:368.
2. Brown J, *et al.* 1991. *Int. Immunol.* 3:175.
3. Suda J, *et al.* 1992. *Blood* 79:2288.
4. Baumhueter S, *et al.* 1994.