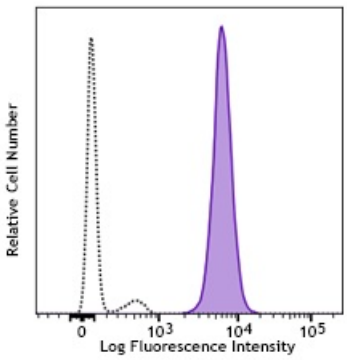
SONY

Product Data Sheet

Brilliant Violet 785™ anti-human CD31

Catalog # / Size:	2115735 / 25 tests 2115740 / 100 tests
Clone:	WM59
Isotype:	Mouse IgG1, κ
Reactivity:	Human, Non-human primate, Other
Preparation:	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 785™ under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Workshop Number:	V P025
Concentration:	Lot-specific



Human peripheral blood granulocytes were stained with anti-human CD31 (clone WM59) Brilliant Violet 785™ (filled histogram) or mouse IgG1, κ Brilliant Violet 785™ isotype control (open histogram).

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 785™ excites at 405 nm and emits at 785 nm. The bandpass filter 780/60 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 785™ is a trademark of Sirigen Group Ltd.

Application Notes:

Clone WM59 has been reported to recognize the D2 extracellular portion of CD31.

Additional reported applications (for the relevant formats) include: immunofluorescence microscopy[2], immunohistochemical staining of acetone-fixed frozen tissue sections[8], and blocking of platelet aggregation[3]. Clone WM59 is not recommended for immunohistochemical staining of formalin-fixed paraffin-embedded sections.

The purified WM59 antibody is useful as a capture antibody for a sandwich ELISA assay, when used in conjunction with biotin anti-human CD31 antibody antibody as the detection antibody.

Application References:

1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V Oxford University Press. New York.
2. Muczynski KA, *et al.* 2003. *J. Am. Soc. Nephrol.* 14:1336. (IF)
3. Wu XW, *et al.* 1997. *Arterioscl. Throm. Vas.* 17:3154. (Block)
4. Nagano M, *et al.* 2007. *Blood* 110:151. (FC) PubMed
5. MacFadyen JR, *et al.* 2005. *FEBS Lett.* 579:2569. PubMed
6. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
7. Sestak K, *et al.* 2007. *Vet. Immunol. Immunopathol.* 119:21.
8. Wicki A, *et al.* 2012. *Clin. Cancer Res.* 18:454. (FC, IHC) PubMed
9. Oeztuerk-Winder F, *et al.* 2012. *EMBO J.* 31:3431. (FC) PubMed
10. Bushway ME, *et al*. 2014. *Biol Reprod*. 90(5): 110 (IF) PubMed

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Description:

CD31 is a 130-140 kD type I transmembrane glycoprotein also known as platelet endothelial cell adhesion molecule-1 (PECAM-1) or Endocam. It is expressed on monocytes, platelets, granulocytes, endothelial cells and lymphocyte subsets. CD31 has been reported to bind CD38 and be involved in wound healing, angiogenesis, and cellular migration in an inflammatory situation.

Antigen References:

1. DeLisser H, *et al.* 1994. *Immunol. Today* 15:490.
2. Newman P, 1997. *J. Clin. Invest.* 99:3.
3. Fawcett J, *et al.* 1995. *J. Cell Biol.* 128:1229.