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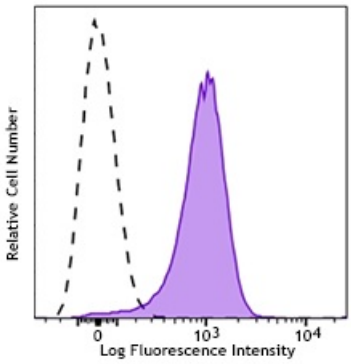
Product Data Sheet

Brilliant Violet 785™ anti-mouse CD31

Catalog # / Size:	1112175 / 50 µg
Clone:	390
Isotype:	Rat IgG2a, κ
Immunogen:	C3H/HeJ mouse hematopoietic progenitor cell line 3
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 785™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 785™ and unconjugated antibody.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Concentration:	0.2 mg/ml



C57BL/6 splenocytes were stained with CD31 (clone 390) Brilliant Violet 785™ (filled histogram) or rat IgG2a, 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 ≤0.25 µg per million cells in 100 µl volume. 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. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Application Notes:	Anti-mouse CD31 clones 390 and MEC13.3 bind to their respective non-overlapping epitopes in IgD2 of CD31.[8] Additional reported applications (for the relevant formats) include: immunoprecipitation[1], *in vitro* and *in vivo* blocking of CD31-mediated cell-cell interactions[1-4], and immunohistochemical staining[5,6,7] of acetone-fixed frozen sections and zinc-fixed paraffin-embedded sections. **Special Note:** This antibody is not recommended for formalin-fixed paraffin-embedded sections.

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Application References:

1. Baldwin HS, *et al.* 1994. *Development* 120:2539. (IP, Block)
2. DeLisser HM, *et al.* 1997. *Am. J. Pathol.* 151:671. (Block)
3. Rosenblum WI, *et al.* 1996. *Stroke* 27:709. (Block)
4. Iguchi A, *et al.* 1997. *Cell Struct. Funct.* 22:357. (Block)
5. Wyder L, *et al.* 2000. *Cancer Res.* 60:4682. (IHC)
6. Wiewrodt R, *et al.* 2002. *Blood* 99:912. (IHC)
7. McQualter JL, *et al.* 2009. *Stem Cells.* 27:623. (IHC) PubMed
8. Chacko AM, *et al.* 2012. *PLoS One* 7:e34958.
9. Greineder CF, *et al.* 2013. *PLoS One.* 14:80110. PubMed

Description: CD31 is a 130-140 kD glycoprotein, also known as platelet endothelial cell adhesion molecule (PECAM-1) and EndoCAM. It is a member of the Ig superfamily, expressed on endothelial cells, platelets, granulocytes, monocytes/macrophages, dendritic cells, and T and B cell subsets, and is critical for cell-cell interactions. The primary ligands for CD31 have been reported to be CD38 and the vitronectin receptor (α_v β_3 integrin, CD51/CD61). Other reported functions of CD31 are neutrophil emigration to sites of inflammation and angiogenesis.

Antigen References:

1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. DeLisser HM, *et al.* 1994. *Immunol. Today* 15:490.
3. Newman PJ, *et al.* 1990. *Science* 247:1219.

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