SONY

Product Data Sheet

PE/Dazzle™ 594 anti-mouse CD31

Catalog # / Size: 1112625 / 25 µg
1112630 / 100 µg

Clone: MEC13.3

Isotype: Rat IgG2a, κ

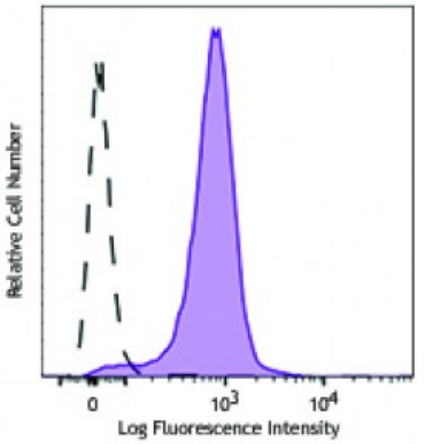
Immunogen: Polyoma middle T transformed EC line tEnd.1

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: Lot-specific



C57BL/6 mouse splenocytes were stained with PE/Dazzle™ 594 CD31 (clone MEC13.3) (filled histogram) or rat IgG2a, κ 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 ≤0.5 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

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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 (in the relevant formats) include: immunoprecipitation1, *in vitro* and *in vivo* blocking of CD31-mediated cell-cell interactions[1-4], and immunohistochemical staining[1,5,6] of acetone-fixed frozen sections and zinc-fixed paraffin-embedded sections.
Special Note: The antibody works well on acetone-fixed frozen sections as well as Zinc-fixed paraffin-embedded sections. It sometime works on formalin-fixed and paraformaldehyde-fixed paraffin-embedded tissue sections but inconsistent results have been reported. This antibody is not recommended for formalin-fixed paraffin-embedded sections or for Western blot analysis. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 102512).

Application References:
1. Vecchi A, *et al.* 1994. *Eur. J. Cell Biol.* 63:247. (IP, IHC, Block)
2. Christofidou-Solomidou M, *et al.* 1997. *J. Immunol.* 158:4872. (Block)

3. DeLisser HM, *et al.* 1997. *Am. J. Pathol.* 151:671. (Block)
4. Rosenblum WI, *et al.* 1994. *Am. J. Pathol.* 145:33. (Block)
5. Baldwin HS, *et al.* 1994. *Development* 120:2539. (IHC)
6. Voswinckel R, *et al.* 2003. *Circ. Res.* 93:372. (IHC)
7. Leung VW, *et al.* 2009. *Am J. Pathol.* 175:1757. PubMed
8. Chacko AM, *et al.* 2012. *PLoS One* 7:e34958.
9. Giacomini C, *et al.* 2014. *Exp Eye Res.* 18:1. PubMed
10. Morita R, *et al.* 2015. *PNAS.* 112:160. PubMed
11. Ito A, *et al.* 2015. *Brain Res.* 1594:310. PubMed

Description: CD31 is a 130-140 kD glycoprotein, also known as platelet endothelial cell adhesion molecule (PECAM-1), EndoCAM, and gpIIa. 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-to-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.