

**Purified anti-mouse CD31**

**Catalog # / Size:** 1112505 / 50 µg  
1112510 / 500 µg

**Clone:** MEC13.3

**Isotype:** Rat IgG2a, κ

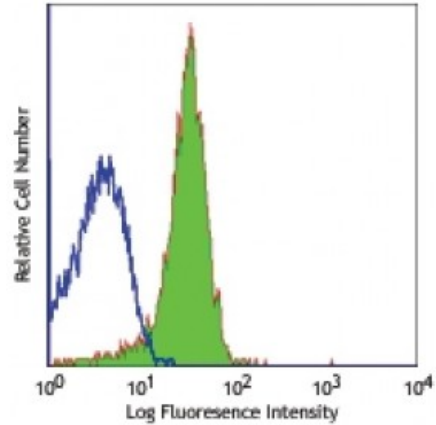
**Immunogen:** Polyoma middle T transformed EC line tEnd.1

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography.

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

**Concentration:** 0.5



C57BL/6 mouse splenocytes stained with purified MEC13.3, followed by anti-rat IgG FITC

**Applications:**

**Applications:** Other

**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 ≤1.0 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Anti-mouse CD31 clones 390 and MEC13.3 bind to their respective non-overlapping epitopes in IgD2 of CD31.<sup>8</sup> Additional reported applications (in the relevant formats) include: immunoprecipitation<sup>1</sup>, *in vitro* and *in vivo* blocking of CD31-mediated cell-cell interactions<sup>1-4</sup>, and immunohistochemical staining<sup>1,5,6</sup> 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 ( $\alpha_v \beta_3$  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.