

**Pacific Blue™ anti-human CD31**

**Catalog # / Size:** 2115570 / 100 µg  
2115565 / 25 µg

**Clone:** WM59

**Isotype:** Mouse IgG1, κ

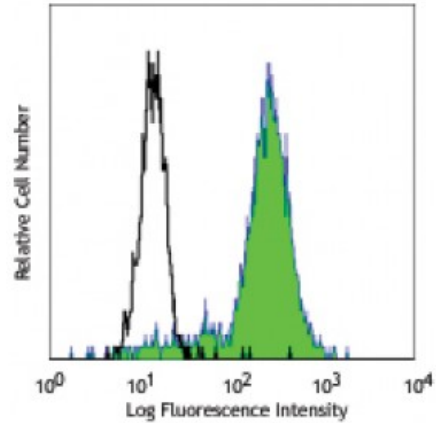
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.

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

**Workshop Number:** V P025

**Concentration:** 0.5



Human peripheral blood monocytes were stained with CD31 (clone WM59) Pacific Blue™ (filled histogram) or mouse IgG1, κ Pacific Blue™ 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 ≤ 2.0 microg per 10<sup>6</sup> cells in 100 microL volume or 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**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<sup>2</sup>, immunohistochemical staining of acetone-fixed frozen tissue sections<sup>8</sup>, and blocking of platelet aggregation<sup>3</sup>. Clone WM59 is not recommended for immunohistochemical staining of formalin-fixed paraffin-embedded sections. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 303108).

- Application References:**
- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V Oxford University Press. New York.
  - Muczynski KA, *et al.* 2003. *J. Am. Soc. Nephrol.* 14:1336. (IF)
  - Wu XW, *et al.* 1997. *Arterioscl. Throm. Vas.* 17:3154. (Block)
  - Nagano M, *et al.* 2007. *Blood* 110:151. (FC) [PubMed](#)
  - MacFadyen JR, *et al.* 2005. *FEBS Lett.* 579:2569. [PubMed](#)
  - Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
  - Sestak K, *et al.* 2007. *Vet. Immunol. Immunopathol.* 119:21.
  - Wicki A, *et al.* 2012. *Clin. Cancer Res.* 18:454. (FC, IHC) [PubMed](#)
  - Oeztuerk-Winder F, *et al.* 2012. *EMBO J.* 31:3431. (FC) [PubMed](#)
  - Santoro SP, *et al.* 2015. *Cancer Immunol Res.* 3:68. [Pubmed](#)

**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.