

**APC anti-human CD31**

**Catalog # /** 2115575 / 25 tests  
**Size:** 2115580 / 100 tests

**Clone:** WM59

**Isotype:** Mouse IgG1,  $\kappa$

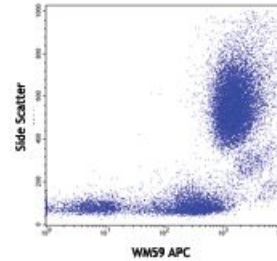
**Reactivity:** Human

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

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Workshop Number:** V P025

**Concentration:** Lot-specific



Human peripheral blood lymphocytes, monocytes and granulocytes were stained with CD31 (clone WM59) APC.

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**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/ $\mu$ g, Azide-Free, 0.2  $\mu$ m 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](#)
- Jung SM, *et al.* 2015. *J Rheumatol.* 42:264. [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.