

**APC/Fire™ 750 anti-mouse CD31**

**Catalog # / Size:** 1112165 / 25 µg  
1112170 / 100 µg

**Clone:** 390

**Isotype:** Rat IgG2a, κ

**Immunogen:** C3H/HeJ mouse hematopoietic progenitor cell line 3

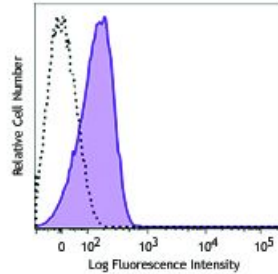
**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC/Fire™

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

**Workshop Number:** 750 under optimal conditions.

**Concentration:** 0.2 mg/ml



C57BL/6 mouse splenocytes were stained with CD31 (clone 390) APC/Fire™ 750 (open histogram) or rat IgG2a, κ APC/Fire™ 750 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.

\* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.

**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 (for 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>5,6,7</sup> of acetone-fixed frozen sections and zinc-fixed paraffin-embedded sections. **Special Note:** This antibody is not recommended for 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. 102412).

- 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 ( $\alpha_v \beta_3$  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.