

Alexa Fluor® 647 anti-mouse CD31

Catalog # / Size: 1112075 / 25 µg
1112080 / 100 µg

Clone: 390

Isotype: Rat IgG2a, κ

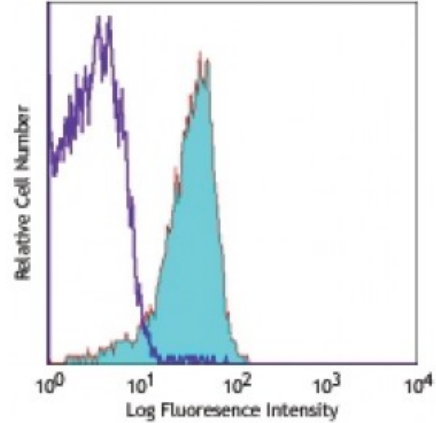
Immunogen: C3H/HeJ mouse hematopoietic progenitor cell line 3

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions.

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

Concentration: 0.5



C57BL/6 mouse splenocytes stained with 390 Alexa Fluor® 647

Applications:

Applications: Immunofluorescence

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 microg per 10⁶ cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.

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 (for the relevant formats) include: immunoprecipitation¹, *in vitro* and *in vivo* blocking of CD31-mediated cell-cell interactions¹⁻⁴, and immunohistochemical staining^{5,6,7} 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. Mori Y, *et al.* 2014. *Sci Rep.* 4:6997. [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.