SONY

# Product Data Sheet

## Alexa Fluor® 700 anti-mouse CD31

**Catalog # / Size:** 1112215 / 25 µg

**Clone:** 390

**Isotype:** Rat IgG2a, κ

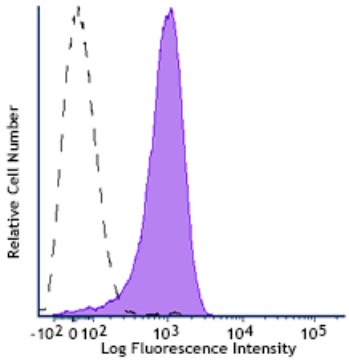
**Immunogen:** C3H/HeJ mouse hematopoietic progenitor cell line 3

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 700.

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

**Concentration:** 0.5 mg/mL




C57BL/6 mouse splenocytes were stained with CD31 (clone 390) Alexa Fluor® 700 (filled histogram) or rat IgG2a, κ Alexa Fluor® 700 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.

* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**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: immunoprecipitation[1], *in vitro* and *in vivo* blocking of CD31-mediated cell-cell interactions[1-4], 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.

**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





Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com

**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.