Product Data Sheet

PE anti-mouse CD31

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Catalog # / Size:	1112035 / 50 µg
	1112040 / 200 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 PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration:	0.2
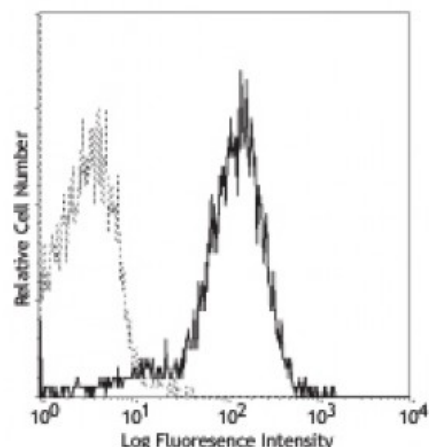
C57BL/6 splenocytes stained with 390 PE

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 ≤1.0 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.
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. 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. Im JH, *et al.* Int J Cancer. 132:315. PubMed
	10. Aschermann S, *et al.* 2013. *PNAS.* 110:19402. PubMed
	11. Moding EJ, *et al.* 2015. *Sci Transl Med.* 7:278. 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 (α_v β_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.