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Product Data Sheet

Alexa Fluor® 488 anti-mouse CD31

Catalog # / Size: 102513 / 25 µg
102514 / 100 µg

Clone: MEC13.3

Isotype: Rat IgG2a, κ

Immunogen: Polyoma middle T transformed EC line tEnd.1

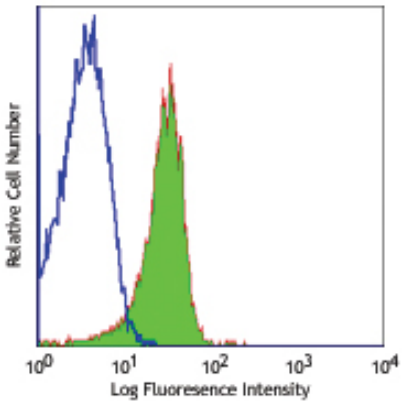
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.

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

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



C57BL/6 mouse splenocytes stained with MEC13.3 Alexa Fluor® 488

Applications:

Applications: FC - *Quality tested*
IHC, IF - *Reported in the literature*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤2.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.
** Alexa Fluor® 488 is a registered trademark of Molecular Probes, Inc. Alexa Fluor® 488 dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

Application Notes: Additional reported applications (in the relevant formats) include: immunoprecipitation[1], *in vitro* and *in vivo* blocking of CD31-mediated cell-cell interactions[1-4], and immunohistochemical staining[1,5,6] of acetone-fixed frozen sections and zinc-fixed paraffin-embedded sections. **Special Note:** The antibody works well on acetone-fixed frozen sections as well as Zinc-fixed paraffin-embedded sections. It sometime works on formalin-fixed and paraformaldehyde-fixed paraffin-embedded tissue sections but inconsistent results have been reported. This antibody is not recommended for formalin-fixed paraffin-embedded sections or for Western blot analysis. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 102512).

Application References:
1. Vecchi A, *et al.* 1994. *Eur. J. Cell Biol.* 63:247. (IP, IHC, Block)
2. Christofidou-Solomidou M, *et al.* 1997. *J. Immunol.* 158:4872. (Block)
3. DeLisser HM, *et al.* 1997. *Am. J. Pathol.* 151:671. (Block)
4. Rosenblum WI, *et al.* 1994. *Am. J. Pathol.* 145:33. (Block)
5. Baldwin HS, *et al.* 1994. *Development* 120:2539. (IHC)
6. Voswinckel R, *et al.* 2003. *Circ. Res.* 93:372. (IHC)
7. Leung VW, *et al.* 2009. *Am J. Pathol.* 175:1757. PubMed

Description: CD31 is a 130-140 kD glycoprotein, also known as platelet endothelial cell adhesion molecule (PECAM-1), EndoCAM, and gpIIa. 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-to-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. The MEC13.3 antibody has been shown to inhibit *in vitro* and *in vivo* functions of CD31.

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.

Related Products:

Product	Clone	Application
Cell Staining Buffer		FC, ICC, ICFC
Alexa Fluor® 488 Rat IgG2a, κ Isotype Ctrl	RTK2758	FC, ICFC
TruStain fcX™ (anti-mouse CD16/32)	93	FC

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BioLegend Inc., 9727 Pacific Heights Blvd, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587