Technical Data Sheet

# Alexa Fluor® 647 Mouse anti-Human CD31

## Product Information

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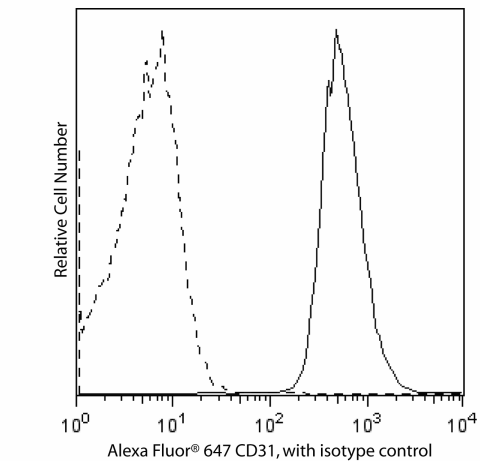
| **Material Number:** | **558094** |
| **Alternate Name:** | PECAM-1 |
| **Size:** | 0.1 mg |
| **Concentration:** | 0.2 mg/ml |
| **Clone:** | M89D3 |
| **Isotype:** | Mouse IgG2a, κ |
| **Reactivity:** | QC Testing: Human |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

Reacts with CD31, also known as platelet endothelial cell adhesion molecule - 1 (PECAM-1), a sigle chain, type I transmembrane protein of approximately 130 - 140 kDa. CD31 is a member of the immunoglobulin supergene family, its extracellular region is composed of 574 aminoacids and contains six C2-type Ig domains, its intracellular region is composed of 118 residues. CD31 (PECAM-1) is expressed on endothelial cells, platelets, monocytes, neutrophils and NK cells. It has also been observed on subsets of T cells, but not on circulating B cells. It has been implicated in a number of cellular phenomena, including vascular wound healing, angiogenesis, and transendothelial migration of leukocytes and platelet aggregation in inflammatory responses.




***Analysis of CD31 in human peripheral blood granulocytes.*** *Normal human peripheral blood cells were stained with either Alexa Fluor® 647 Mouse anti-Human CD31 (solid line) or Alexa Fluor® 647 Mouse IgG2a, κ Isotype Control (clone G155-178, Cat. No. 557715, dotted line). Flow cytometry was performed on a BD™ FACSCalibur flow cytometry system.*

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

## Application Notes

**Application**

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| Flow cytometry | Routinely Tested |

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## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 557715 | Alexa Fluor® 647 Mouse IgG2a, κ Isotype Control | 100 tests | G155-178 |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
5. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

## References


DeLisser HM, Newman PJ, Albelda SM. Platelet endothelial cell adhesion molecule (CD31). *Curr Top Microbiol Immunol.* 1993; 184:37-45. (Biology)

Muller WA, Weigl SA, Deng X, Phillips DM. PECAM-1 is required for transendothelial migration of leukocytes. *J Exp Med.* 1993; 178(2):449-460. (Biology)

Schlossman S, Boumell L, et al, ed. *Leucocyte Typing V.* New York: Oxford University Press; 1995. (Biology)

Simmons DL, Walker C, Power C, Pigott R. Molecular cloning of CD31, a putative intercellular adhesion molecule closely related to carcinoembryonic antigen. *J Exp Med.* 1990 June; 171(6):2147-2152. (Biology)

Stockinger H, Gadd SJ, Eher R, Majdic O, Schreiber W, Kasinrerk W, Strass B, Schnabl E, Knapp W.. Molecular characterization and functional analysis of the leukocyte surface protein CD31. *J Immunol.* 1990 December; 145(11):3889-3897. (Biology)

Vaporciyan AA, DeLisser HM, Yan HC, et al. Involvement of platelet-endothelial cell adhesion molecule-1 in neutrophil recruitment in vivo. *Science.* 1993; 262(5139):1580-1582. (Biology)