



Qty: 100 µg/200 µL

## Mouse anti-CD31

For Research Use Only

Catalog No. 37-0700

Lot No.

## Mouse anti-CD31 (PECAM-1)

### FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

**CLONE:** MEM-05

**ISOTYPE:** Mouse IgG<sub>1</sub>

### IMMUNOGEN

Leukocytes from LGL-type leukemia patient.

### SPECIFICITY

This antibody reacts with the human CD31 (PECAM-1) protein. On Western blots, it identifies a single band at ~130 kDa.

### REACTIVITY

Reactivity has been confirmed with HUVEC (human umbilical vein endothelial cells) lysates by Western blotting and with methacarn-fixed human tonsil tissue by immunohistochemistry.

Sample	Flow Cytometry	Western Blotting	Immuno-histochemistry
Human	+++	+++	+++
Mouse	ND	ND	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

### USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**Western Blotting:** 1-3 µg/mL  
**Flow Cytometry:** 10 µg/mL  
**Immunohistochemistry:** 10 µg/mL

### STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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**BACKGROUND**

CD31 (PECAM-1, or platelet/endothelial cell adhesion molecule 1) is a 130 kDa glycoprotein expressed on the surface of endothelial cells, platelets, and several leukocyte subsets<sup>1</sup>. CD31 is localized at places of cell-cell contact, and has sequence homology to CEA (carcinoembryonic antigen) which is a known intracellular adhesion molecule (ICAM)<sup>2</sup>.

CD31 is involved in endothelial cell tube formation, is believed to promote cell-cell adhesion during the assembly of vascular structures, and may also regulate macrophage recognition and inflammatory and immune responses. CD31 is able to bind itself, as well as to integrin  $\alpha\beta 3$ , which is an integrin involved in endothelial cell matrix adhesion<sup>3</sup>. Other reported ligands for CD31 include glycosaminoglycans<sup>1</sup> and CD38<sup>4</sup>. CD31 is involved in the regulatory T cell activation, and plays a role in the diapedesis step of leukocyte emigration during inflammation.

**REFERENCES**

1. Prager, et al. *J Exp Med* 184(1):41-50, 1996.
2. Simmons, et al. *J Exp Med* 171(6):2147-2152, 1990.
3. Bird IN, et al. *J Cell Sci* 112:1989-1997, 1999.
4. Horenstein AL, et al. *Biochem* 330:1129-1135, 1998.

**RELATED PRODUCTS**

<b>Product</b>	<b>Clone/PAD*</b>	<b>Cat. No.</b>
Mouse anti-Cadherin 11	5B2H5	32-1700
Rabbit anti-Cadherin 11	WTID1	71-7600
Rabbit anti-pan-Cadherin	ZyPC7	71-7100
Mouse anti-E-Cadherin	4A2C7	33-4000
Mouse anti-E-Cadherin	HECD-1	13-1700
Rat anti-E-Cadherin	ECCD-2	13-1900
Mouse anti-E-Cadherin	SHE78-7	13-5700
Rat anti-E-Cadherin	ECCD-1	13-1800
Mouse anti-KSP-Cadherin	4H6/F9	35-4700
Mouse anti-N-Cadherin	3B9	33-3900
Rat anti-N-Cadherin	NCD-2	13-2100
Mouse anti-P-Cadherin	12H6	32-4000
Mouse anti-P-Cadherin	NCC-CAD-299	13-5800
Rat anti-P-Cadherin	PCD-1	13-2000
Mouse anti-CD54 (I-CAM)	My13	07-5403
Mouse anti-CD56 (N-CAM)	123C3	07-5603
Mouse anti-CD44 (H-CAM)	1M7.8.1	13-5500
Rabbit anti-CD146 (MUC-18, M-CAM)	ZMD.218	34-6800
Mouse anti-CEA	Col-1	18-0057
Protein A	Sepharose <sup>®</sup> 4B	10-1041
rec-Protein G	Sepharose <sup>®</sup> 4B	10-1241

\*PAD: Polyclonal Antibody Designation

<b>Conjugate</b>	<b>ZyMAX™ Goat x Rabbit IgG (H+L)</b>	<b>ZyMAX™ Goat x Mouse IgG (H+L)</b>
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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