

## Technical Data Sheet

## APC Rat Anti-Mouse CD31

## Product Information

|                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| <b>Material Number:</b> | <b>561814</b>                                             |
| <b>Alternate Name:</b>  | PECAM-1                                                   |
| <b>Entrez Gene ID:</b>  | 18613                                                     |
| <b>Size:</b>            | 25 µg                                                     |
| <b>Concentration:</b>   | 0.2 mg/ml                                                 |
| <b>Clone:</b>           | MEC 13.3                                                  |
| <b>Immunogen:</b>       | 129/Sv mouse-derived endothelioma cell line tEnd.1        |
| <b>Isotype:</b>         | Rat (LEW) IgG2a, κ                                        |
| <b>Reactivity:</b>      | QC Testing: Mouse                                         |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

The MEC13.3 antibody reacts with CD31, also known as PECAM-1 (Platelet Endothelial Cell Adhesion Molecule-1). CD31 is a 130 kDa integral membrane protein, a member of the immunoglobulin superfamily, that mediates cell-to-cell adhesion. CD31 is expressed constitutively on the surface of adult and embryonic endothelial cells and is weakly expressed on many peripheral leukocytes and platelets. It has also been detected on bone marrow-derived hematopoietic stem cells and embryonic stem cells. CD31 is involved in the transendothelial emigration of neutrophils, and neutrophil PECAM-1 appears to be down-regulated after extravasation into inflamed tissues. Multiple alternatively spliced isoforms are detected during early post-implantation embryonic development; this alternative splicing is involved in the regulation of ligand specificity. CD38 and vitronectin receptor (αvβ3 integrin, CD51/CD61) are proposed to be ligands for CD31. CD31-mediated endothelial cell-cell interactions are involved in angiogenesis. The MEC13.3 mAb inhibits a variety of in vitro and in vivo functions mediated by CD31.

## Preparation and Storage

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

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

The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

## Application Notes

## Application

|                |                  |
|----------------|------------------|
| Flow cytometry | Routinely Tested |
|----------------|------------------|

## Suggested Companion Products

| Catalog Number | Name                            | Size   | Clone  |
|----------------|---------------------------------|--------|--------|
| 553932         | APC Rat IgG2a κ Isotype Control | 0.1 mg | R35-95 |
| 554656         | Stain Buffer (FBS)              | 500 ml | (none) |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
3. 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.
4. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
5. An isotype control should be used at the same concentration as the antibody of interest.
6. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

## References

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