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# Biotinylated Monoclonal Antibody to Mouse CD31

## PECAM-1, Early Stage Myeloid Precursor Cells

Monoclonal antibody ER-MP12 recognizes PECAM-1, platelet/endothelial cell adhesion molecule 1. It is a general marker for the detection of a major population of haematopoietic stem cells and is useful for the accumulation of early murine macrophage precursors from bone marrow cell suspensions by FACS. An even more precise characterization of such isolated and concentrated precursor cells is achieved when ER-MP12 is combined with other markers like ER-MP20 (anti Ly-6C) or ER-MP58. The ER-MP12 antigen is also expressed by endothelial cells.

***This antibody was produced serum-free, without fetal calf serum.***

## TECHNICAL AND ANALYTICAL CHARACTERISTICS

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| **Product Number:** | T-2018 (Lot 07PB1417) |
| **Clone:** | ER-MP12 |
| **Host species, isotype:** | Rat IgG2a |
| **Quantity:** | 300µg |
| **Format:** | Affinity purified from cell culture, biotinylated, lyophilized. Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.6mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA) as a stabilizer and 0.05% (v/v) Kathon™ CG as a preservative. |
| **Stability:** | Original vial: 1 year at 4° - 8°C from date of purchase. Stock solution or aliquots thereof: 1 year at -20°C. Avoid freeze-thaw cycles. |
| **Applications:** | Tested for immunohistochemistry (IHC); has also been described to work in FACS.<br>**Approximate working dilution for IHC:**<br>Frozen sections: 0.4µg/ml (1:1600)<br>Paraffin sections: 15µg/ml (1:40); pretreatment with Proteinase K for antigen retrieval is recommended<br>Optimal dilutions should be determined by the end user<br>Suggested positive control: Mouse kidney<br>Please see **www.bma.ch** for protocols and general information |
| **Immunogen:** | Murine macrophage precursor cell |
| **Protein database:** | mouse-Q08481 |

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| **Antigen, epitope:** | The antigen is a glutaraldehyde (0.05%) and paraformaldehyde (1%) resistant 140kD surface glycoprotein (reducing and non-reducing conditions) identified as CD31. The antigen expression closely follows that of CD34. |
| **Antigen distribution:** | **Isolated cells:** The antigen is found on the surface of approximately 40% of freshly isolated bone marrow cells of adult mice, on the majority of immortalized macrophage precursor cell lines (M1, RMB-1, RMB-3) corresponding to CFU-GM cells. The antibody detects pluri- and multipotent stem cells and prothymocytes as well as particular lymphoid cells in bone marrow and peripheral lymphoid organs.<br>**Tissue sections:** The antigen is detected within the lymphopoietic islands in the spleen of newborn (day 12) and in the bone marrow of adult mice. Capillary endothelial cells of adult mice also express the antigen. |
| **Specificity:** | **Mouse:** Major population of colony forming unit macrophage (CFU-M) precursor cells, subpopulation of pre CFU-M and monoblasts, precursor cells of granulocytes.<br>**Other:** unknown |

### Selected references


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For in vitro research only. This product contains Kathon™ CG as a preservative.

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