Alexa Fluor® 488 Mouse Anti-Human CD31

Product Information

Material Number: 558068
Alternate Name: PECAM-1
Size: 100 Tests
Vol. per Test: 5 µl
Clone: M89D3
Isotype: Mouse IgG2a
Reactivity: QC Testing: Human
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The M89D3 monoclonal antibody specifically recognizes CD31, which is also known as platelet endothelial cell adhesion molecule -1 (PECAM-1), a single 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 amino acids and contains six C2-type Ig domains, and the 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.

Flow cytometric analysis of CD31 expression on human peripheral granulocytes. Human whole blood was stained with either Alexa Fluor® 488 Mouse Anti-Human CD31 (Cat. No. 558068; solid line histogram) or Alexa Fluor® 488 Mouse IgG2a, κ Isotype Control (Cat. No. 557703; dashed line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Fluorescent histograms were derived from gated events with the forward and side light-scattering characteristic of viable granulocytes.

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 Alexa Fluor® 488 under optimum conditions, and unreacted Alexa Fluor® 488 was removed.

Application Notes

Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Routinely Tested</th>
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<tbody>
<tr>
<td>Flow cytometry</td>
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Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>557703</td>
<td>Alexa Fluor® 488 Mouse IgG2a, κ Isotype Control</td>
<td>100 Tests</td>
<td>G155-178</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 mL</td>
<td>(none)</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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<td>(none)</td>
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<tr>
<td>555899</td>
<td>Lysing Buffer</td>
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<tr>
<td>349202</td>
<td>BD FACSTM Lysing Solution</td>
<td>100 mL</td>
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Product Notices
1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
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. Alexa Fluor® 488 fluorochrome emission is collected at the same instrument settings as for fluorescein isothiocyanate (FITC).
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
7. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.

References