Purified Mouse Anti Human CD46

Product Information

Material Number: 555948
Alternate Name: AHUS2; Membrane cofactor protein; MCP; MIC10; TLX; TRA2.10
Size: 0.1 mg
Concentration: 0.5 mg/ml
Clone: E4.3
Isotype: Mouse IgG2a, κ
Reactivity: QC Testing: Human
Workshop: IV N24
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The E4.3 monoclonal antibody specifically binds to CD46. CD46 is also known as membrane cofactor protein (MCP). CD46 is a type I membrane glycoprotein composed of two non-disulfide linked α (66 kDa) and β (56 kDa) chains expressed on lymphocytes, monocytes and granulocytes. It is not expressed on erythrocytes or platelets. There are four isoforms of the dimer which function as complement regulatory factors. CD46 promotes the enzymatic degradation of activated C3b and/or C4b deposited on host cells. It also serves as the measles virus receptor.

Flow cytometric analysis of CD46 expression on human peripheral blood lymphocytes. Whole blood was stained with either Purified Mouse Anti Human CD46 (Cat. No. 555948; solid line histogram) or Purified Mouse IgG2a, κ Isotype Control (Cat. No. 555571; dashed line histogram), then FITC Goat Anti-Mouse IgG/IgM (Cat. No. 555988). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Fluorescence histograms depicting NKB1 (or Ig isotype control expression) were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed on a BD FACScan™ system.

Preparation and Storage

Store undiluted at 4°C.

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

Application Notes

Application

Flow cytometry Routinely Tested
Fluorescence microscopy Tested During Development

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>555571</td>
<td>Purified Mouse IgG2a, κ Isotype Control</td>
<td>0.1 mg</td>
<td>G155-178</td>
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<tr>
<td>555988</td>
<td>FITC Goat Anti-Mouse IgG/IgM</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 mL</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
<td>500 mL</td>
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<tr>
<td>555899</td>
<td>Lysing Buffer</td>
<td>100 mL</td>
<td>(none)</td>
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<tr>
<td>349202</td>
<td>BD FACSTM Lysing Solution</td>
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</table>
Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures or injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
4. 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
Kurita M, Yanagi Y, Hara T, Nagasawa S, Matsumoto M, Seya T. Human lymphocytes are more susceptible to measles virus than granulocytes, which is attributable to the phenotypic differences of their membrane cofactor protein (CD46). Immunol Lett. 1995; 48(2):91-95. (Biology)