**Technical Data Sheet**

**PE Mouse Anti-Human CD46**

**Product Information**

- **Material Number:** 564252
- **Alternate Name:** AHUS2; Membrane cofactor protein; MCP; MIC10; TLX; TRA2.10
- **Size:** 100 Tests
- **Vol. per Test:** 5 µl
- **Clone:** E4.3
- **Isotype:** Mouse IgG2a, κ
- **Reactivity:** QC Testing: Human
- **Workshop:** IV N24
- **Storage Buffer:** Aqueous buffered solution containing BSA and ≤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 expressed on human peripheral blood lymphocytes.](image)

Flow cytometric analysis of CD46 expressed on human peripheral blood lymphocytes. Whole blood was stained with either PE Mouse IgG2a, κ Isotype Control (Cat. No. 553457; dashed line histogram) or PE Mouse Anti-Human CD46 (Cat. No. 564252; solid line histogram). Erythrocytes were lysed with Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scattering characteristics of viable lymphocytes. Flow cytometry was performed on a BD™ LSR II.

**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 with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

**Application Notes**

**Application**

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<th>Application</th>
<th>Routinely Tested</th>
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<tbody>
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<td>Flow cytometry</td>
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**Suggested Companion Products**

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<td>Stain Buffer (FBS)</td>
<td>500 mL</td>
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<td>554657</td>
<td>Stain Buffer (BSA)</td>
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<td>PE Mouse IgG2a, κ Isotype Control</td>
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<td>349202</td>
<td>BD FACSTM Lysing Solution</td>
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<td>555899</td>
<td>Lysing Buffer</td>
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564252 Rev. 2
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at wwwbdbiosciencescom/colors.
6. Please refer to wwwbdbiosciencescom/pharmingen/protocols for technical protocols.

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)
Schlossman SF, Stuart F, Schlossman ... et al., ed. Leucocyte typing V: white cell differentiation antigens: proceedings of the fifth international workshop and conference held in Boston, USA, 3-7 November, 1993. Oxford: Oxford University Press; 1995(Biology)