Technical Data Sheet

PE Mouse Anti-Human CD59

Product Information

Material Number: 555764
Alternate Name: HRF-20; MAC-inhibitory protein; MAC-IP; MACIF; MEM43; MIRL; Protectin; 1F5
Size: 100 Tests
Vol. per Test: 20 µl
Clone: p282 (H19)
Immunogen: Human Erythrocytes
Isotype: Mouse IgG2a, κ
Reactivity: QC Testing: Human
Workshop: V S006
Storage Buffer: Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

Description

The p282 (H19) monoclonal antibody specifically binds to CD59, a 19 kDa glycosylphosphatidylinositol (GPI)-anchored glycoprotein, expressed on hematopoietic and non-hematopoietic cells. Because of its interaction with complement activated products, CD59 has been termed membrane-attack-complex-inhibitory factor (MACIF), homologous restriction factor (HRF20), membrane inhibitor of reactive lysis (MIRL) and Protectin. It inhibits the cytolytic activity of the complement system by binding to C8 and C9, thereby blocking the assembly of the membrane attack complex. CD59 also participates in spontaneous T-cell/erythrocyte adhesion, interacts with CD2, and plays a role in T-cell activation.

Clone p282 also cross-reacts with peripheral blood leukocytes of baboon and both rhesus and cynomolgus macaque monkeys. The distribution of leukocytes is similar to that observed with peripheral blood leukocytes from normal human donors, with all populations, lymphocytes, monocytes and granulocytes showing reactivity to p282.

Flow cytometric analysis of CD59 expression on peripheral blood leucocytes. Human or rhesus whole blood was lysed with BD FACS™ Lysing Solution (Cat. No. 349202), then preincubated with Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) (Cat. No. 553141/553142). The cells were then stained with either PE Mouse IgG2a, κ Isotype Control (Cat. No. 555574; dashed line histogram) or PE Mouse Anti-Human CD59 (Cat. No. 555764/557141/560953; solid line histogram). Fluorescent histograms were derived from gated events with the side and forward light-scattering characteristics of human lymphocytes (Left Panel) or rhesus granulocytes (Right Panel). Flow cytometry was performed on a BD LSRFortessa™ X-20 system.
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

<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

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<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tbody>
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<td>555574</td>
<td>PE Mouse IgG2a, κ Isotype Control</td>
<td>100 Tests</td>
<td>G155-178</td>
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<td>PE Mouse Anti-Human CD59</td>
<td>50 Tests</td>
<td>p282 (H19)</td>
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<td>Stain Buffer (BSA)</td>
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<td>Lysing Buffer</td>
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<td>553141</td>
<td>Purified Rat Anti-Mouse CD16/CD32</td>
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<tr>
<td>553142</td>
<td>Purified Rat Anti-Mouse CD16/CD32</td>
<td>0.5 mg</td>
<td>2.4G2</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. 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 www.bdbiosciences.com/colors.
6. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.

References
Kishimoto T, Tadamitsu Kishimoto .. et al., ed. Leucocyte typing VI : white cell differentiation antigens : proceedings of the sixth international workshop and conference held in Kobe, Japan, 10-14 November 1996. New York, Garnett Pub.; 1997(Biology)