PE-CF594 Mouse Anti-Human CD33

Product Information

Material Number: 562492
Alternate Name: Siglec-3; SIGLEC3; Sialic acid-binding Ig-like lectin 3; p67; gp67; My9
Size: 100 tests
Vol. per Test: 5 µl
Clone: WM53
Isotype: Mouse IgG1, κ
Reactivity: QC Testing: Human
Workshop: IV M505
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The WM53 monoclonal antibody specifically binds to human CD33. CD33 is a 67 kDa type I transmembrane glycoprotein. It is expressed on monocytes, activated T cells, myeloid progenitors, mast cells and weakly on polymorphonuclear cells. CD33 is absent on normal platelets, lymphocytes, erythrocytes, and hematopoietic stem cells. Reports indicate that this glycoprotein can function as a sialic acid-dependent cell adhesion molecule and this function can be modulated by endogenous sialoglycoconjugates when CD33 is expressed on the membrane.

This antibody is conjugated to BD Horizon™ PE-CF594, which has been developed exclusively by BD Biosciences as a better alternative to PE-Texas Red. PE-CF594 excites and emits at similar wavelengths to PE-Texas Red yet exhibits improved brightness and spectral characteristics. Due to PE having maximal absorption peaks at 496 nm and 564 nm, PE-CF594 can be excited by the blue (488-nm), green (532-nm) and yellow-green (561-nm) lasers and can be detected with the same filter set as PE-Texas Red (eg 610/20-nm filter).

Flow cytometric analysis of CD33 expression on human peripheral blood leukocytes. Whole blood was stained with FITC Mouse Anti-Human CD14 antibody (Cat. No. 555397) and either BD Horizon™ PE-CF594 Mouse Anti-Human CD33 antibody (Cat. No. 562492; solid line histogram) or with a BD Horizon™ PE-CF594 Mouse IgG1, κ Isotype Control (Cat. No. 562292; dashed line histogram). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from CD14-positive monocytes (Left Panel) or CD14-negative granulocytes (Right Panel) with the light scattering properties of viable cells. Flow cytometry was performed using a BD™ LSR II Flow Cytometer 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 BD Horizon™ PE-CF594 under optimum conditions, and unconjugated antibody and free PE-CF594 were removed.

BD Biosciences

For country contact information, visit bdbiosciences.com/contact

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Application Notes

Application

Flow cytometry Routinely Tested

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>562292</td>
<td>PE-CF594 Mouse IgG1, κ Isotype Control</td>
<td>0.1 mg</td>
<td>X40</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 ml</td>
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<td>555899</td>
<td>Lysing Buffer</td>
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<tr>
<td>555397</td>
<td>FITC Mouse Anti-Human CD14</td>
<td>100 tests</td>
<td>M5E2</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 × 10^6 cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
5. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
6. 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.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Texas Red is a registered trademark of Molecular Probes, Inc., Eugene, OR.
9. CF™ is a trademark of Biotium, Inc.
10. When excited by the yellow-green (561-nm) laser, the fluorescence may be brighter than when excited by the blue (488-nm) laser.
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12. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using multi-laser cytometers, which may directly excite both PE and CF™594.

References