Technical Data Sheet

BV650 Mouse Anti-Human CD20

Product Information

Material Number: 563779
Alternate Name: MS4A1; B1; Bp35; LEU-16; S7
Size: 25 tests
Vol. per Test: 5 µl
Clone: 2H7
Immunogen: Human 6.16c.1.3 B cell line
Isotype: Mouse (C57BL/6) IgG2b, κ
Reactivity: QC Testing: Human
Workshop: II B22; III B739, NL382; IV B201
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 2H7 monoclonal antibody specifically binds to CD20 that is encoded by the MS4A1 (Membrane-spanning 4-domains, subfamily A, member 1) gene. CD20 is a 33-37 kDa unglycosylated four-transmembrane phosphoprotein. CD20 is expressed on pre-B-cells, resting and activated B cells and follicular dendritic cells but not on plasma cells. Low level CD20 expression is observed on a small subset of normal circulating T lymphocytes. The CD20 molecule is involved in the regulation of B-cell activation.

The antibody was conjugated to BD Horizon™ BV650 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. This dye is a tandem fluorochrome of BD Horizon™ BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 650-nm. BD Horizon™ BV650 can be excited by the violet laser and detected in a filter used to detect APC-like dyes (eg, 660/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there will be spillover into the APC and Alexa Fluor® 700 detectors. However, the spillover can be corrected through compensation as with any other dye combination.

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™ BV650 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV650 were removed.

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.

Two-color flow cytometric analysis of CD20 expression on human peripheral blood lymphocytes. Whole blood was stained with APC Mouse Anti-Human CD19 antibody (Cat. No. 555415/561742) and either BD Horizon™ BV650 Mouse IgG2b, κ Isotype Control (Cat. No. 563437; Left Panel) or BD Horizon™ BV650 Mouse Anti-Human CD20 antibody (Cat. No. 563779/563780; Right Panel). Erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). Two color flow cytometric dot plots show the correlated expression of CD20 (or Ig Isotype Control staining) versus CD19 derived from gated events with the forward and side light scatter characteristics of intact lymphocytes. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.

Two-color flow cytometric analysis of CD20 expression on human peripheral blood lymphocytes. Whole blood was stained with APC Mouse Anti-Human CD19 antibody (Cat. No. 555415/561742) and either BD Horizon™ BV650 Mouse IgG2b, κ Isotype Control (Cat. No. 563437; Left Panel) or BD Horizon™ BV650 Mouse Anti-Human CD20 antibody (Cat. No. 563779/563780; Right Panel). Erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). Two color flow cytometric dot plots show the correlated expression of CD20 (or Ig Isotype Control staining) versus CD19 derived from gated events with the forward and side light scatter characteristics of intact lymphocytes. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.

BD Biosciences

bdbiosciences.com

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patent. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD
**Suggested Companion Products**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>563437</td>
<td>BV650 Mouse IgG2b, κ Isotype Control</td>
<td>50 µg</td>
<td>27-35</td>
</tr>
<tr>
<td>563780</td>
<td>BV650 Mouse Anti-Human CD20</td>
<td>100 tests</td>
<td>2H7</td>
</tr>
<tr>
<td>349202</td>
<td>BD FACSTM Lysing Solution</td>
<td>100 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>555899</td>
<td>Lysing Buffer</td>
<td>100 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>555415</td>
<td>APC Mouse Anti-Human CD19</td>
<td>100 tests</td>
<td>HIB19</td>
</tr>
<tr>
<td>561742</td>
<td>APC Mouse Anti-Human CD19</td>
<td>25 tests</td>
<td>HIB19</td>
</tr>
</tbody>
</table>

**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. 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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. Brilliant Violet™ 650 is a trademark of Sirigen.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

**References**


Hullin LE, Hausner MA, Hullin PM, Giorgi JV. CD20 (pan-B cell) antigen is expressed at a low level on a subpopulation of human T lymphocytes. Cytometry. 1993; 14(2):193-204. (Biology)


