APC-H7 Mouse Anti-Human CD45RO

Product Information
Material Number: 561137
Alternate Name: CD45R; PTPRC; LCA; Leukocyte common antigen; GP180; LY5; T200
Size: 50 tests
Vol. per Test: 5 µl
Clone: UCHL1
Isotype: Mouse (BALB/c) IgG2a, κ
Reactivity: QC Testing: Human
Workshop: IV N31
Storage Buffer: Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

Description
The UCHL1 monoclonal antibody specifically reacts with the 180 kDa isoform of CD45 (aka, the Leukocyte Common Antigen). CD45RO is a type I transmembrane glycoprotein that has cytoplasmic protein tyrosine phosphatase activity and functions in signal transduction pathways. This CD45 isoform does not include amino acid sequences encoded by the variable CD45 exons A, B, or C. CD45RO is expressed on most thymocytes, activated T cells, memory T cells, granulocytes and monocytes, but only on a proportion of resting T cells. CD45RO and CD45RA antibodies seem to define complementary, predominantly non-overlapping, populations in resting peripheral T cells, demonstrating heterogeneity within the CD8 and CD4 subpopulations. CD45RO binds to CD22.

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 APC-H7 under optimum conditions, and unconjugated antibody and APC-H7 were removed.

Application Notes
Application
Flow cytometry Routinely Tested

Flow cytometric analysis of CD45RO expression on human peripheral blood lymphocytes.
Left Panel: Whole blood was stained with APC-H7 Mouse Anti-Human CD45RO antibody (Cat. No. 561137; solid line histogram), or with a APC-H7 Mouse IgG2a, κ isotype control (Cat. No. 580897; dashed line histogram). Right Panel: Whole blood was stained with APC-H7 Mouse Anti-Human CD45RO antibody (Cat. No. 561137) in conjunction with a PE Mouse Anti-Human CD45RA antibody (Cat. No. 555489). Erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No.555899). The fluorescence histograms and dot plot were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

BD Biosciences
bdbiosciences.com

United States Canada Europe Japan Asia Pacific Latin America/Caribbean
877.232.8995 888.259.0187 32.53.720.550 0120.855.990 65.6861.0633 55.11.3185.0995

For country-specific contact information, visit bdbiosciences.com/how_to_order/

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.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company, ©2008 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>560897</td>
<td>APC-H7 Mouse IgG2a, κ Isotype Control</td>
<td>0.1 mg</td>
<td>G155-178</td>
</tr>
<tr>
<td>555489</td>
<td>PE Mouse Anti-Human CD45RA</td>
<td>100 tests</td>
<td>HI100</td>
</tr>
<tr>
<td>555899</td>
<td>Lysing Buffer</td>
<td>100 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 ml</td>
<td>(none)</td>
</tr>
</tbody>
</table>

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ 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. 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.

4. BD APC-H7 is a tandem conjugate and an analog of APC-Cy7 with the same spectral properties. It has decreased intensity but it is engineered for greater stability and less spillover in the APC channel and consequently offers better performance than APC-Cy7. It has an absorption maximum of approximately 650 nm. When excited by light from a red laser, the APC fluorochrome can transfer energy to the cyanine dye, which then emits at a longer wavelength. The resulting fluorescent emission maximum is approximately 767 nm. BD recommends that a 750-nm longpass filter be used along with a red-sensitive detector such as the Hamamatsu R3896 PMT. As with APC-Cy7 special filters are required when using APC-H7 in conjunction with APC.

Note: Although our APC-H7 products demonstrate higher lot-to-lot consistency than other APC tandem conjugate products, and every effort is made to minimize the lot-to-lot variation in residual emission from APC, it is strongly recommended that every lot be tested for differences in the amount of compensation required and that individual compensation controls are run for each APC-H7 conjugate.

Note: Cy is a trademark of Amersham Biosciences Limited.

5. Although BD APC-H7 is engineered to minimize spillover to the APC channel and is more stable and less affected by light, temperature, and formaldehyde-based fixatives, compared to other APC-cyanine tandem dyes, it is still good practice to minimize as much as possible, any light, temperature and fixative exposure when working with all fluorescent conjugates.

6. Cy is a trademark of Amersham Biosciences Limited.

7. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

8. 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.

9. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at wwwbdbiosciencescom/colors.

10. Please refer to wwwbdbiosciencescom/pharmingen/protocols for technical protocols.

References


