Technical Data Sheet

PE-Cy™5 Mouse Anti-Human CD161

Product Information

Material Number: 551138
Size: 100 Tests
Vol. per Test: 20 µl
Clone: DX12
Isotype: Mouse (C3H) IgG1, κ
Reactivity: QC Testing: Human
Workshop: VI NK12
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The DX12 monoclonal antibody specifically binds to human CD161 which is also known as Natural killer cell surface protein P1A (NKR-P1A). CD161 is encoded by the KLRB1 (Killer cell lectin-like receptor subfamily B member 1) gene. CD161 is a member of the C-type lectin superfamily and is also referred to as C-type lectin domain family 5 member B (CLEC5B). CD161 is a 80 kDa disulfide-linked homodimer, type II membrane glycoprotein. CD161 is expressed mostly on NK cell populations and on subsets of CD4+ and CD8+ T cells, NKT cells and γδ T cells. Reports indicate that CD161 is expressed preferentially on CD45RO+ T cells, however, it can be found on a subset of thymocytes and fetal liver T cells. Its function has not been fully elucidated, but reports indicate that NKR-P1A may serve as a specific receptor for some NK cell targets. The DX12 antibody can reportedly inhibit spontaneous cytotoxicity mediated by certain NK cell clones.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with PE-Cy5 (formerly known as BD Cy-Chrome™) under optimum conditions, and unconjugated antibody and free PE-Cy5 were removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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>
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<tbody>
<tr>
<td>555750</td>
<td>PE-Cy™5 Mouse IgG1 κ Isotype Control</td>
<td>100 Tests</td>
<td>MOPC-21</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. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

5. PE-Cy5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the PE-Cy5 tandem fluorochrome, extra care must be taken when using dual-laser cytometers which may directly excite both PE and Cy5™.

6. PE-Cy5 is a tandem fluorochrome composed of R-phycoerythrin (PE), which is excited by the 488 nm light of an Argon ion laser and serves as an energy donor, coupled to the cyanine dye Cy5, which acts as an energy acceptor and fluoresces at 670 nm. BD Biosciences Pharmingen has maximized the fluorochrome energy transfer in PE-Cy5, thus maximizing its fluorescence emission intensity, minimizing residual emission from PE, and minimizing lot-to-lot variation.

7. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.

8. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.

9. 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.

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

References