Alexa Fluor® 647 Mouse Anti-Rat CD161a

Product Information

Material Number: 565413
Alternate Name: CD161/Cd161; CD161a, Klrb1a, Nkrp1a/NKR-P1A; CD161b, Klrb1b, Nkrp1b/NKR-P1B
Size: 0.1 mg
Concentration: 0.2 mg/ml
Clone: 10/78
Isotype: Mouse IgG1, κ
Reactivity: QC Testing: Rat
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description
The 10/78 monoclonal antibody recognizes the rat CD161 proteins, CD161a (also known as, Klrb1a, or Nkrp1a/NKR-P1A), and CD161b (Klrb1b, Nkrp1b/NKR-P1B). These type II transmembrane glycoproteins have an extracellular C-type lectin domain and thus belong to the C-type lectin superfamily. These CD161 proteins form ~ 60 kDa homodimers that are expressed on natural killer cells and subsets of T lymphocytes, activated monocytes, and dendritic cells. The 10/78 antibody competes with the previously-described 3.2.3 antibody for binding to these CD161 proteins. CD161 molecules are C-type lectin-like receptors that can either activate (CD161a) or inhibit (CD161b) effector leucocyte responses, eg, cytotoxicity or cytokine production, against target cells which express C-type lectin-like related (Clr) molecules. Although several members of the Klrb1 gene family have been identified in the mouse and rat, only a single human KLRB1 homolog has been discovered.

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 to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

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>565571</td>
<td>Alexa Fluor® 647 Mouse IgG1 κ Isotype Control</td>
<td>50 µg</td>
<td>MOPC-21</td>
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<td>554832</td>
<td>FITC Mouse Anti-Rat CD3</td>
<td>0.5 mg</td>
<td>G4.18</td>
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<td>559975</td>
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<tr>
<td>555899</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
4. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
5. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
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.

## References


Josien R, Heslan M, Soulliou JP, Cuturi MC. Rat spleen dendritic cells express natural killer cell receptor protein 1 (NKR-P1) and have cytotoxic activity to select targets via a Ca2+-dependent mechanism. *J Exp Med.* 1997; 186(3):467-472. (Biology)


Lanier LL. Natural killer cells: from no receptors to too many. *Immunol.* 1997; 6(4):371-378. (Biology)


