FITC Rat Anti-Mouse CD38

Product Information

Material Number: 558813
Alternate Name: ADP-ribosyl cyclase 1; Cyclic ADP-ribose hydrolase 1; I-19; NIM-R5
Size: 0.1 mg
Concentration: 0.5 mg/ml
Clone: 90/CD38 (also known as Ab90)
Immunogen: Mouse Bone Marrow Pre-B cells
Isotype: Rat IgG2a, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 90 monoclonal antibody specifically binds to CD38, a 42 kDa transmembrane glycoprotein on immature and mature, resting and activated, B lymphocytes. In contrast to humans, CD38 expression is down-regulated on mouse germinal center B cells and plasma cells. CD38 is also expressed on a subpopulation of thymic and peripheral T cells, NK cells, and splenic macrophages. Furthermore, CD38 has been detected on bone marrow-derived hematopoietic stem cells. The CD38 molecule is reported to exhibit both cyclase and hydrolase activities and plays a role in lymphocyte activation. CD31, both human and mouse, is reported to be a ligand for human CD38.

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 FITC under optimum conditions, and unreacted FITC 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>553063</td>
<td>PE Hamster Anti-Mouse CD3e</td>
<td>0.1 mg</td>
<td>145-2C11</td>
</tr>
<tr>
<td>553929</td>
<td>FITC Rat IgG2a, κ Isotype Control</td>
<td>0.25 mg</td>
<td>R35-95</td>
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<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 mL</td>
<td>(none)</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
<td>500 mL</td>
<td>(none)</td>
</tr>
</tbody>
</table>

Two-color analysis of CD38 expression on mouse spleen cells. Single-cell suspensions of BALB/c splenocytes were simultaneously stained with PE Hamster Anti-Mouse CD3e (Cat. No. 553063) and FITC Rat Anti-Mouse CD38 (Cat. No. 558813; right panel). Contour plots were derived from gated events with the side and forward light-scatter characteristics of viable splenocytes. Flow cytometry was performed on a BD FACScan™ flow cytometry system.
Product Notices
1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References
Oliver AM. Personal Communication. (Biology)