Technical Data Sheet

Purified Mouse Anti-Rat Mast Cells

Product Information

Material Number: 551770
Size: 0.1 mg
Concentration: 0.5 mg/ml
Clone: AR32AA4 (also known as AA4)
Immunogen: Rat basophilic leukemia cell line
Isotype: Mouse (BALB/c) IgG1, κ
Reactivity: QC Testing: Rat
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The AR32AA4 (AA4) antibody reacts with two distinct α-galactosyl derivatives of the ganglioside GD1b (disialogangliosides). The mAb AA4 reacts with four indistinct bands ranging in size from 56 - 110 kDa. Binding of the AA4 antibody to RBL-2H3 cells has been shown to inhibit IgE-mediated histamine release by inhibiting FcεR1 signal transduction events. The mAb AA4 has been shown to be useful for immunomagnetic mast cell separation from rat bone marrow and peritoneal lavage cell populations. This corresponds with reports that the AA4-binding epitope is expressed at higher levels than the FcεR1 on RBL-2H3 cells.

Staining of mAb AR32AA4 on RBL (ATCC CRL-2256) cells. RBL cells were incubated with either Purified Mouse IgG1, κ isotype control (Cat. no. 557273, open dash line overlay) or purified AR32AA4 mAb (shaded histogram), followed by biotinylated F(ab')2 rat antimouse IgG and finally Streptavidin-FITC (Cat. no. 554060). The cells in both the shaded histogram and the overlay were gated on 7-AAD negative cells. Flow cytometry was performed on a BD FACSCalibur™ flow cytometry system.

Preparation and Storage

Store undiluted at 4°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

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<tr>
<td>Flow cytometry</td>
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<tr>
<td>Cell separation</td>
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<td>Immunohistochemistry</td>
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<td>Immunoprecipitation</td>
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<td>Inhibition</td>
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<tr>
<td>Immunocytochemistry (cytospins)</td>
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Recommended Assay Procedure:

It is recommended that for immunofluorescent staining of rat cells, the AA4 antibody be carefully titrated and used with F(ab')2 secondary reagents, such as a biotinylated F(ab')2 rat anti-mouse IgG (multiple adsorption).

Suggested Companion Products

<table>
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<th>Catalog Number</th>
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<tbody>
<tr>
<td>557273</td>
<td>Purified Mouse IgG1, κ Isotype Control</td>
<td>0.5 mg</td>
<td>MOPC-31C</td>
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<tr>
<td>554060</td>
<td>FITC Streptavidin</td>
<td>0.5 mg</td>
<td>(none)</td>
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<tr>
<td>554970</td>
<td>PE Mouse Anti-Rat CD54</td>
<td>0.2 mg</td>
<td>1A29</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 mL</td>
<td>(none)</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
4. 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.
5. An isotype control should be used at the same concentration as the antibody of interest.

References


