Technical Data Sheet

Purified Hamster Anti-Mouse and Rat CD42d

Product Information

Material Number: 552992
Alternate Name: Platelets and Megakaryocytes, Platelet Glycoprotein V
Size: 0.5 mg
Concentration: 0.5 mg/ml
Clone: 1C2
Immunogen: (C57BL/6 x DBA/2)F1 mouse platelets
Isotype: Armenian Hamster IgG3, λ
Reactivity: Mouse, Rat
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 1C2 monoclonal antibody specifically reacts with CD42d (Platelet Glycoprotein V, GPV), a glycoprotein of 74 kDa in the mouse and 88 kDa in the rat. GPV noncovalently associates with GPIb (CD42b and c) and GPIX (CD42a) to form a receptor for von Willebrand factor on megakaryocytes and resting platelets. The binding sites for von Willebrand factor and thrombin have been localized to the GPIbachain (CD42b) of the GPIb-V-IX complex. GPV is cleaved by thrombin to release a 69-kDa soluble fragment, which contains the epitope recognized by mAb 1C2. The 1C2 antibody does not cross-react with human platelets nor with other hematopoietic cells of the mouse and rat. Anti-mouse CD41 mAb MWReg30 (Cat. No. 553848, for the FITC conjugate) may be used with mAb 1C2 to monitor mouse megakaryocyte maturation.

Preparation and Storage

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

Application Notes

Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Routinely Tested</th>
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<tbody>
<tr>
<td>Flow cytometry</td>
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<tr>
<td>Immunoprecipitation</td>
<td>Reported</td>
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<td>Immunohistochemistry-frozen</td>
<td>Reported</td>
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<tr>
<td>Immunocytochemistry (cytospins)</td>
<td>Reported</td>
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<tr>
<td>Immunofluorescence</td>
<td>Reported</td>
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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>553977</td>
<td>Purified Hamster IgG3 λ1 Isotype Control</td>
<td>0.5 mg</td>
<td>A19-4</td>
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<tr>
<td>554011</td>
<td>FITC Mouse Anti-Armenian and Syrian Hamster IgG Cocktail</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.

References