Technical Data Sheet

Purified Rat Anti-Mouse CD43

Product Information

Material Number: 552366
Alternate Name: Spn; Sialophorin; Leukosialin; Ly-48; Ly48; Galgp; LEUK
Size: 1 mL
Concentration: 7.8 µg/ml
Clone: S7
Immunogen: Mouse Plasmacytoma MOPC-315
Isotype: Rat (DA x LOU) IgG2a, κ
Reactivity: Mouse
Storage Buffer: Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium azide.

Description

The S7 monoclonal antibody specifically binds to the 115 kDa glycosylated form of CD43 (Ly-48, Leukosialin). CD43 is expressed on IL-7-responsive pro-B cells, plasma cells, peritoneal and splenic CD5+ B cells (B-1 cells), granulocytes, monocytes, macrophages, platelets, natural killer cells, thymocytes, peripheral T cytotoxic/suppressor cells, and most T helper cells, but not resting conventional peripheral B cells. CD43 expression has also been detected on pluripotent hematopoietic stem cells and myeloid, lymphoid, and NK-cell progenitors in the bone marrow. Studies of CD43-deficient mice indicate that CD43 participates in the negative regulation of T-cell activation and adhesion.

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

<table>
<thead>
<tr>
<th>Flow cytometry</th>
<th>Routinely Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunohistochemistry-formalin (antigen retrieval required)</td>
<td>Tested During Development</td>
</tr>
<tr>
<td>Immunohistochemistry-frozen</td>
<td>Tested During Development</td>
</tr>
</tbody>
</table>

Recommended Assay Procedure:

**Immunohistochemistry:** This antibody is recommended to test for immunohistochemical staining of citrate pre-treated formalin-fixed paraffin-embedded sections of mouse spleen or thymus. The isotype control recommended for use with this antibody is purified rat IgG2a (Cat. No. 559073). For optimal indirect immunohistochemical staining, this antibody should be titrated (1:10 to 1:50 dilution, suggested starting range) and visualized via a three-step staining procedure in combination with biotinylated polyclonal anti-rat Ig (Cat. No. 559286) as the secondary antibody and streptavidin-HRP (Cat. No. 550946) together with the DAB detection system (Cat. No. 550880). More conveniently, the anti-rat Ig HRP detection kit (Cat. No. 551013) can be used which contains the biotinylated secondary antibody, antibody diluent, streptavidin-HRP and DAB substrates for use in the staining procedure.
<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>559073</td>
<td>Purified Rat IgG2a x Isotype Control</td>
<td>0.25 mg</td>
<td>R35-95</td>
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<tr>
<td>559286</td>
<td>Biotin Goat Anti-Rat Ig</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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<tr>
<td>550880</td>
<td>DAB Substrate Kit</td>
<td>500 Tests</td>
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<tr>
<td>550946</td>
<td>Streptavidin HRP</td>
<td>50 mL</td>
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<td>551013</td>
<td>Anti-Rat Ig HRP Detection Kit</td>
<td>200 Tests</td>
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<tr>
<td>550524</td>
<td>Retrievagen A (pH 6.0)</td>
<td>1000 mL</td>
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<tr>
<td>559148</td>
<td>Antibody Diluent for IHC</td>
<td>125 mL</td>
<td>(none)</td>
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</tbody>
</table>

**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. An isotype control should be used at the same concentration as the antibody of interest.
5. This antibody has been developed for the immunohistochemistry application. However, a routine immunohistochemistry test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance.

**References**


Wells SM, Kantor AB, Stall AM. CD43 (S7) expression identifies peripheral B cell subsets. *J Immunol.* 1994; 153(12):5503-5515. (Biology)