Technical Data Sheet

Purified Mouse Anti-Human CD3

Product Information

Material Number: 551916
Alternate Name: CD3E; CD3-epsilon; T3E; TCRE
Size: 0.1 mg
Concentration: 0.5 mg/ml
Clone: SP34-2
Immunogen: Purified Human CD3ε Protein
Isotype: Mouse (BALB/c) IgG1, λ
Reactivity: Tested in Development: Rhesus, Cynomolgus, Baboon
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Clone SP34-2 is a mouse IgG1 isotype monoclonal antibody, descendant of SP34 (mouse IgG3), with the same specificity and reactivity pattern as the parent clone. It cross-reacts with a major subset of peripheral blood lymphocytes, but not monocytes or granulocytes, of baboon, and rhesus, cynomolgus, and pigtail macaque monkeys. The distribution on lymphocytes is similar to that observed with normal human donor lymphocytes with the majority of CD3-positive cells being negative when dual stained with antibodies to B or NK cells markers. SP34-2 is also capable of inducing cell proliferation on both human and non-human primate PBMC.

Profile of peripheral blood lymphocytes of Rhesus macaque (macaca mulatta) analyzed by flow cytometry. Rhesus macaque whole blood was stained with BD Pharmingen™ Purified Mouse anti-Human CD3 (Cat. No. 551916; solid line histogram) or with a BD Pharmingen™ Purified Mouse IgG1 κ Isotype Control (Cat. No. 556648; dashed line histogram), followed by FITC Goat anti-Mouse IgG/IgM (Cat. No. 555988). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899).

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

| Flow cytometry | Routinely Tested |

Recommended Assay Procedure:

Clone SP34-2 is routinely tested using Purified Mouse IgG1 κ, clone MOPC-21 (Cat. No. Cat. No. 556648 ), as the isotype control. Alternate isotype controls specific for the lambda light chain, such as clones S1-68.1 (Cat No. 553452) and A111-3 (Cat. No. 553485), are not routinely tested for flow cytometry application. Investigators are encouraged to validate the alternative clones for the desired applications.

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>556648</td>
<td>Purified Mouse IgG1 κ Isotype Control</td>
<td>0.1 mg</td>
<td>MOPC-21</td>
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<tr>
<td>555988</td>
<td>FITC Goat Anti-Mouse IgG/IgM</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<tr>
<td>555899</td>
<td>Lysing Buffer</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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<td>(none)</td>
</tr>
</tbody>
</table>
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. 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.

5. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.


References


Pessano S, Oetjen H, Bhan AK, Terhorst C. The T3/T cell receptor complex: antigenic distinction between the two 20-kd T3 (T3-delta and T3-epsilon) subunits. EMBO J. 1995; 4(2):337-344. (Immunogen)

