Technical Data Sheet

Purified Rat Anti-Mouse CD21/CD35

Product Information

Material Number: 553817
Alternate Name: CR2/CR1
Size: 0.5 mg
Concentration: 0.5 mg/ml
Clone: 7G6
Immunogen: Purified Mouse CR1
Isotype: Rat (SD) IgG2b, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 7G6 antibody recognizes an epitope shared by 145-150-kDa and 190-kDa complement receptor proteins, originally designated CR2 (CD21) and CR1 (CD35), respectively. In the mouse, CD21 and CD35 are expressed on the majority of peripheral B lymphocytes, on the majority of resident peritoneal macrophages and mast cells, on peripheral blood granulocytes after treatment with N-formyl-Met-Leu-Phe, and on follicular dendritic cells, but not on thymocytes, T cells, erythrocytes, or platelets. CD21 is a ligand-binding component of the CD19/CD21/CD81 signal-transduction complex associated with the antigen receptor on B lymphocytes. CD21/CD35 also co-localizes with CD19 on the surface of peritoneal mast cells. Cr2null mice display impaired inflammatory and humoral immune responses in vivo. The 7G6 mAb has been reported to inhibit rosette formation by C3d-bearing sheep erythrocytes, to block the complement dependent trapping of immune complexes by follicular dendritic cells, and to down-regulate mouse CD21/CD35 expression upon in vivo application, thus inhibiting primary antibody responses to immunization. Co-stimulation of B-cell differentiation via Sepharose-coupled 7G6 antibody has also been observed. The 7G6 mAb recognizes an epitope on CD35 distinct from the epitope recognized by anti-mouse CD35, clone 8C12 (Cat. No. 558768, for the purified antibody), and it does not block binding of 8C12 mAb to mouse CD35.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C.

Expression of CD21/CD35 on splenic B lymphocytes. BALB/c splenocytes were stained with PE-conjugated anti-mouse CD45R/B220 mAb RA3-6B2 (Cat. No. 553089/553090) and either purified rat IgG2b, κ isotype control mAb A95-1 (Cat. No. 553986, left panel) or purified mAb 7G6 (right panel), followed by FITC-conjugated anti-rat IgG2b mAb RG7/11.1 (Cat. No. 553980). Flow cytometry was performed on a BD FACScan™ flow cytometry system.

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Application Notes

**Application**

<table>
<thead>
<tr>
<th>Method</th>
<th>Status</th>
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<tbody>
<tr>
<td>Flow cytometry</td>
<td>Routinely Tested</td>
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<tr>
<td>Immunohistochemistry-frozen</td>
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<td>Immunoprecipitation</td>
<td>Reported</td>
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<td>Western blot</td>
<td>Reported</td>
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<tr>
<td>Blocking</td>
<td>Reported</td>
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<tr>
<td>(Co)-stimulation</td>
<td>Reported</td>
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**Suggested Companion Products**

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<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tbody>
<tr>
<td>553089</td>
<td>PE Rat Anti-Mouse CD45R/B220</td>
<td>0.1 mg</td>
<td>RA3-6B2</td>
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<tr>
<td>553900</td>
<td>FITC Mouse Anti-Rat IgG2b</td>
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<td>RG7/11.1</td>
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<tr>
<td>553986</td>
<td>Purified Rat IgG2b, x Isotype Control</td>
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<td>A95-1</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. 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.

**References**


