

Technical Data Sheet

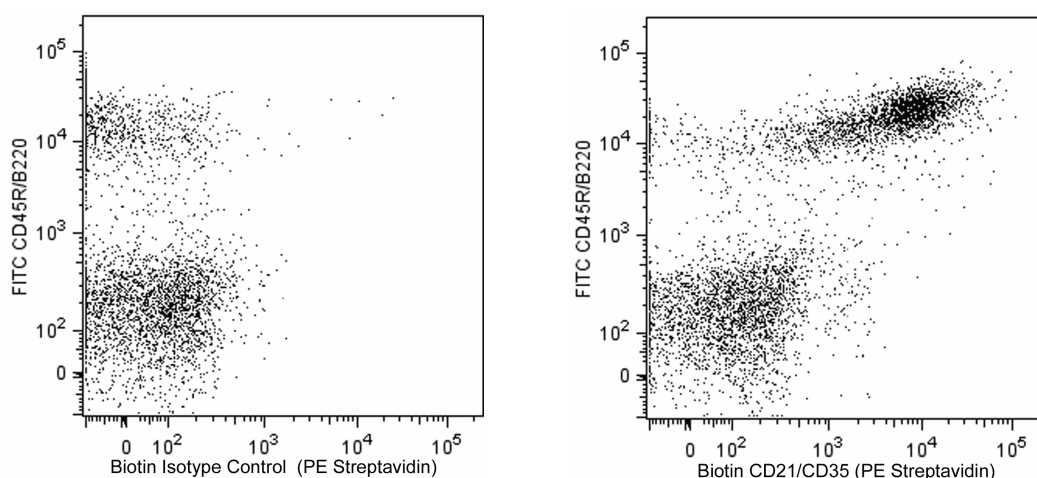
Biotin Rat Anti-Mouse CD21/CD35

Product Information

Material Number:	562796
Alternate Name:	CR2/CR1
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	7G6
Isotype:	Rat (SD) IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ 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.



Multicolor flow cytometric analysis of CD21/CD35 expression on BALB/c mouse spleen. Splenocytes were stained simultaneously with FITC Rat Anti-Mouse CD45R/B220 antibody (Cat. No. 553087/553088) and with either Biotin Rat IgG2b, κ Isotype Control (Cat. No. 553987; Left Panel) or Biotin Rat anti-Mouse CD21/CD35 (Cat. No. 562796; Right Panel), followed by Streptavidin-PE (Cat. No. 554061). Two-color flow cytometric dot plots show the correlated expression patterns of CD21/CD35 (or Ig isotype control staining) versus CD45R for gated events with the forward and side light-scatter characteristics of viable spleen cells. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C.

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

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

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Application Notes

Application

Flow cytometry

Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
553987	Biotin Rat IgG2b, κ Isotype Control	0.25 mg	A95-1
554656	Stain Buffer (FBS)	500 ml	(none)
554061	PE Streptavidin	0.5 mg	(none)
553087	FITC Rat Anti-Mouse CD45R/B220	0.1 mg	RA3-6B2
553088	FITC Rat Anti-Mouse CD45R/B220	0.5 mg	RA3-6B2

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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

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