

## Technical Data Sheet

## APC Mouse Anti-Human CD21

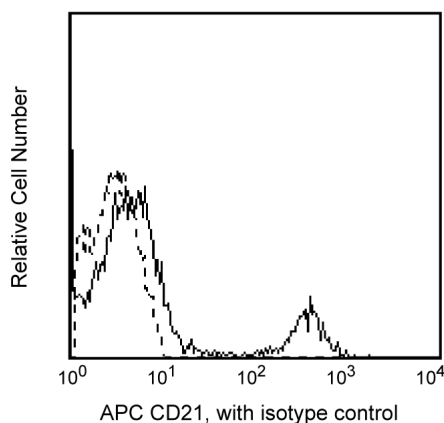
## Product Information

<b>Material Number:</b>	<b>559867</b>
<b>Alternate Name:</b>	CR2; Complement receptor type 2; C3DR; EBV-R; Epstein-Barr virus receptor
<b>Size:</b>	100 Tests
<b>Vol. per Test:</b>	20 µl
<b>Clone:</b>	B-ly4
<b>Isotype:</b>	Mouse IgG1, κ
<b>Reactivity:</b>	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon, Pig
<b>Workshop:</b>	IV B98
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

## Description

The B-ly4 monoclonal antibody specifically binds to CD21, a 145 kDa glycosylated type I integral membrane protein. CD21 is a receptor for the C3d complement fragment and for Epstein-Barr virus (EBV). CD21 is expressed on mature B cells, follicular dendritic cells, and some epithelial cells. It is also weakly expressed on the subset of mature T cells and thymocytes. CD21 plays a role in B-cell activation and proliferation. It may also play a role in modulating the function of T cells in the immune response to infections by lymphotropic viruses. Recently, CD21 was found to be part of a large complex containing CD19, CD81, and possibly other molecules.

This clone also cross-reacts with a major subset of, but not all, peripheral blood CD20+ lymphocytes of baboon, and both rhesus and cynomolgus macaque monkeys. A subset of CD3+ cells is also CD21+.



**Flow cytometric analysis of CD21 expression on human peripheral blood lymphocytes.** Whole blood was stained with either APC Mouse Anti-Human CD21 (Cat. No. 559867/561357/561767; solid line histogram) or APC Mouse IgG1 κ Isotype Control (Cat. No. 555751; dashed line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Fluorescent histograms were derived from gated events with the side and forward light-scattering characteristics of viable lymphocytes.

## Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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

The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

## Application Notes

## Application

Flow cytometry	Routinely Tested
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559867 Rev. 7



## Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
555751	APC Mouse IgG1, $\kappa$ Isotype Control	100 Tests	MOPC-21
561357	APC Mouse anti-Human CD21	50 Tests	B-ly4
561767	APC Mouse Anti-Human CD21	25 Tests	B-ly4
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
555899	Lysing Buffer	100 mL	(none)
349202	BD FACSTM Lysing Solution	100 mL	(none)

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l experimental sample (a test).
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [wwwbdbiosciences.com/colors](http://wwwbdbiosciences.com/colors).
6. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
7. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
8. Please refer to [wwwbdbiosciences.com/pharming/en/protocols](http://wwwbdbiosciences.com/pharming/en/protocols) for technical protocols.

## References

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Fischer E, Delibrias C, Kazatchkine MD. Expression of CR2 (the C3dg/EBV receptor, CD21) on normal human peripheral blood T lymphocytes. *J Immunol*. 1991; 146(3):865-869. (Biology)

Knapp W, W. Knapp .. et al., ed. *Leucocyte typing IV : white cell differentiation antigens*. Oxford New York: Oxford University Press; 1989:1-1182. (Clone-specific)

Paterson RL, Kelleher C, Amankonah TD, et al. Model of Epstein-Barr virus infection of human thymocytes: expression of viral genome and impact on cellular receptor expression in the T-lymphoblastic cell line, HPB-ALL. *Blood*. 1995; 85(2):456-464. (Biology)

Tsoukas CD, Lambris JD. Expression of EBV/C3d receptors on T cells: biological significance. *Immunol Today*. 1993; 14(2):56-59. (Biology)