Technical Data Sheet

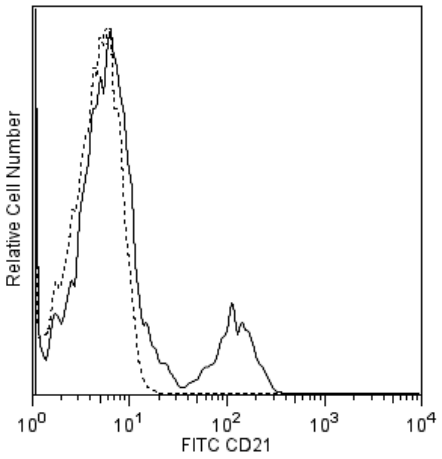
FITC Mouse Anti-Human CD21

Product Information

Material Number:	**561372**
Alternate Name:	CR2; Complement receptor type 2; C3DR; EBV-R; Epstein-Barr virus receptor
Size:	100 tests
Vol. per Test:	5 µl
Clone:	B-ly4
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Baboon, Rhesus, Cynomolgus, Pig
Workshop:	IV B98
Storage Buffer:	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), 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.



Flow cytometric analysis of CD21 expression on human peripheral blood lymphocytes. *Human whole blood was stained with FITC Mouse anti-Human CD21 (Cat. No. 561372; solid line histogram) or with a FITC Mouse IgG1, κ Isotype Control (Cat. No. 555748; dashed line histogram). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometry System.*

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 with FITC under optimum conditions, and unreacted FITC was removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
555899	Lysing Buffer	100 ml	(none)
555748	FITC Mouse IgG1, κ Isotype Control	100 tests	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.

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4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.

References

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, Dorken B, Rieber EP, et al, ed. *Leucocyte Typing IV*. New York: Oxford University Press; 1989:1-1208. (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)