

# CD21 Monoclonal Mouse Antibody (FR5A10)

## Product Description

Recognizes a protein of 140 kDa, which is identified as the complement receptor 2 (CR2)/CD21. Its epitope is located in 5-8 short consensus repeats (SCRs). This MAb is highly specific to CR2 and shows no cross-reaction with CR1. This protein is expressed strongly on mature B cells, follicular dendritic cells and weakly on immature thymocytes and T lymphocytes. In B-cell ontogeny, CD21 appears after the pre-B-stage, is maintained during peripheral B-cell development and is lost upon terminal differentiation into plasma cells. CD21 expression is also gradually lost after stimulation of B cells in vitro. CD21 functions as receptor for C3d, C3dg and iC3b Complement components, for EBV and for IFN $\alpha$ . CD21 binds to CD23 and associates with CD19, CD81 and Leu13 to form a large signal-transduction complex involved in B cell activation. MAb FR5A10 can be used for EBV receptor studies, interactions between B and T cells especially through CD23, human complement receptor (CR2) studies and IFN- $\alpha$  receptor studies.

Primary antibodies are available purified, or with a selection of fluorescent CF $\text{\textcircled{R}}$  dyes and other labels. CF $\text{\textcircled{R}}$  dyes offer exceptional brightness and photostability. See the [CF \$\text{\textcircled{R}}\$  Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF $\text{\textcircled{R}}$ 405S and CF $\text{\textcircled{R}}$ 405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF $\text{\textcircled{R}}$  dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 1087, Anti-CD21 (FR5A10)**

## Product attributes

Antibody number	#1087
Antibody reactivity (target)	CD21
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	FR5A10
Isotype	IgG1, kappa
Molecular weight	140 kDa
Synonyms	CD21; Complement C3d receptor (C3DR); Complement Receptor type 2 (CR2); CVID7; EBV receptor; EBV-R; Epstein-Barr virus receptor; EVBR; SLEB9
Human gene symbol	CR2
Entrez gene ID	1380
SwissProt	P20023
Unigene	445757
Immunogen	Raji cells
Antibody target cellular localization	Plasma membrane
Species reactivity	Human
Antibody application notes	For coating for ELISA, order Ab without BSA. Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Optimal dilution and staining procedure for a specific application should be determined by user. Recommended starting concentrations for titration are 1-2 $\mu$ g/mL for most applications, or 1 $\mu$ g/million cells/100 $\mu$ L for flow cytometry
Positive control	Tonsil
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 $^{\circ}$ C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 $^{\circ}$ C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Immunology
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum ( <i>Bos taurus</i> ), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Cell/tissue expression	Antigen presenting cells, B-cells, Lymphocytes

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF $\text{\textcircled{R}}$ 405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF<math>\text{\textcircled{R}}</math>405S Features</a>
BNC88	CF $\text{\textcircled{R}}$ 488A	490/515	488	GFP, FITC	<a href="#">CF<math>\text{\textcircled{R}}</math>488A Features</a>
BNC68	CF $\text{\textcircled{R}}$ 568	562/583	532, 561	RFP, TRITC	<a href="#">CF<math>\text{\textcircled{R}}</math>568 Features</a>
BNC94	CF $\text{\textcircled{R}}$ 594	593/614	561	Texas Red $\text{\textcircled{R}}$	<a href="#">CF<math>\text{\textcircled{R}}</math>594 Features</a>
BNC40	CF $\text{\textcircled{R}}$ 640R	642/662	633-640	Cy $\text{\textcircled{R}}$ 5	<a href="#">CF<math>\text{\textcircled{R}}</math>640R Features</a>
BNC47	CF $\text{\textcircled{R}}$ 647	650/665	633-640	Cy $\text{\textcircled{R}}$ 5	<a href="#">CF<math>\text{\textcircled{R}}</math>647 Features</a>
BNC74	CF $\text{\textcircled{R}}$ 740	742/767	633-685	775/50	<a href="#">CF<math>\text{\textcircled{R}}</math>740 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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## References

Schlossman SF et al. eds Leukocyte Typing V, p516-522, Oxford University Press, Oxford, 1995. | Aubry JP et al. In Schlossman SF et al eds. Leukocyte Typing V, p535-536, Oxford University Press, Oxford, 1995

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