

**CD21 / CR2 / C3d-Receptor / EBV-Receptor Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone FR5A10 ]**  
**Catalog # AH11127**

### Specification

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**CD21 / CR2 / C3d-Receptor / EBV-Receptor Antibody - With BSA and Azide - Product Information**

Application	,13,3,4,
Primary Accession	<a href="#">P20023</a>
Other Accession	<a href="#">1380, 445757</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	140kDa KDa

**CD21 / CR2 / C3d-Receptor / EBV-Receptor Antibody - With BSA and Azide - Additional Information**

**Gene ID** 1380

**Other Names**

Complement receptor type 2, Cr2, Complement C3d receptor, Epstein-Barr virus receptor, EBV receptor, CD21, CR2, C3DR

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

CD21 / CR2 / C3d-Receptor / EBV-Receptor Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**CD21 / CR2 / C3d-Receptor / EBV-Receptor Antibody - With BSA and Azide - Protein Information**

**Name** CR2

**Synonyms** C3DR

**Function**

Serves as a receptor for various ligands including complement component CD3d, HNRNPU OR IFNA1 (PubMed: [1849076](http://www.uniprot.org/citations/1849076), PubMed: [21527715](http://www.uniprot.org/citations/21527715), PubMed: [7753047](http://www.uniprot.org/citations/7753047)). When C3d is bound to antigens, attaches to C3d on B- cell surface and thereby facilitates the recognition and uptake of antigens by B-cells (PubMed: [21527715](http://www.uniprot.org/citations/21527715)). This interaction enhances B-cell activation and subsequent immune responses. Forms a complex with

several partners on the surface of B-cells including CD19, FCRL5 and CD81, to form the B-cell coreceptor complex that plays a crucial role in B-cell activation and signaling (PubMed:<a href="http://www.uniprot.org/citations/1383329" target="\_blank">1383329</a>, PubMed:<a href="http://www.uniprot.org/citations/30107486" target="\_blank">30107486</a>). Induces also specific intracellular signaling separately from the BCR and CD19 by activating the tyrosine kinase SRC, which then phosphorylates nucleolin/NCL and triggers AKT and GSK3 kinase activities in a SYK/CD19-independent manner (PubMed:<a href="http://www.uniprot.org/citations/12938232" target="\_blank">12938232</a>). Acts as a ligand for CD23 (FcepsilonRII), a low-affinity receptor for IgE, which is expressed on B-cells and other immune cells, and thus participates in the regulation of IgE production (PubMed:<a href="http://www.uniprot.org/citations/1386409" target="\_blank">1386409</a>).

#### **Cellular Location**

Cell membrane; Single-pass type I membrane protein

#### **Tissue Location**

Mature B-lymphocytes, T-lymphocytes, pharyngeal epithelial cells, astrocytes and follicular dendritic cells of the spleen

### **CD21 / CR2 / C3d-Receptor / EBV-Receptor Antibody - With BSA and Azide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **CD21 / CR2 / C3d-Receptor / EBV-Receptor Antibody - With BSA and Azide - Images**

### **CD21 / CR2 / C3d-Receptor / EBV-Receptor Antibody - With BSA and Azide - Background**

Recognizes a protein of 140kDa, which is identified as the complement receptor 2 (CR2)/CD21. Its epitope is located in 5-8 short consensus repeats (SCRs). This MAbs 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. MAbs 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.

### **CD21 / CR2 / C3d-Receptor / EBV-Receptor Antibody - With BSA and Azide - 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