

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

Application	IHC-F, IF, FC
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

**Application Note**

IHC-F~~N/A  
IF~~1:50~200  
FC~~1:10~50

**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))

target="\_blank">7753047</a>). 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:<a href="http://www.uniprot.org/citations/21527715" target="\_blank">21527715</a>). 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>). Also induces 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 IFNalpha. 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