10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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	**,13,3,4,**
Primary Accession	P20023
Other Accession	1380, 445757
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, PubMed:21527715, PubMed: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). 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:1383329, PubMed:30107486). 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:12938232). 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:1386409).

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 Cytomety
- 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 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 IFNalpha. 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.

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