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CR2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6965b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P20023
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21402
Calculated MW	112916
Antigen Region	986-1014

Additional Information

Gene ID	1380
Other Names	Complement receptor type 2, Cr2, Complement C3d receptor, Epstein-Barr virus receptor, EBV receptor, CD21, CR2, C3DR
Target/Specificity	This CR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 986-1014 amino acids from the C-terminal region of human CR2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CR2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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). 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: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

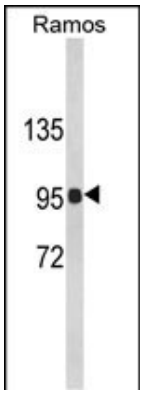
Background

CR2 is a membrane protein, which functions as a receptor for Epstein-Barr virus (EBV) binding on B and T lymphocytes.

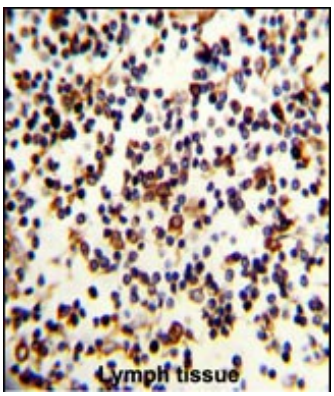
References

Rikova,K., et.al., Cell 131 (6), 1190-1203 (2007)

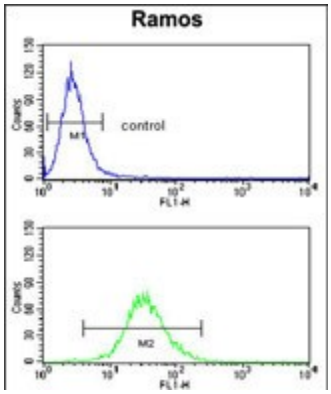
Images



Western blot analysis of CR2 Antibody (C-term) (Cat. #AP6965b) in Ramos cell line lysates (35ug/lane). CR2 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human Lymph reacted with CR2 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



CR2 Antibody (C-term) (Cat. #AP6965b) flow cytometry analysis of Ramos cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.