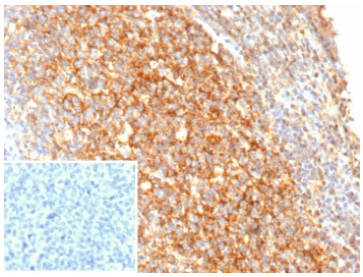
CR2 Antibody / B-Cell Co-Receptor Marker [clone rCR2/9537] (V5514)

Catalog No.	Formulation	Size
V5514-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5514-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5514SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

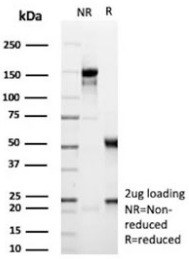
Recombinant MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	rCR2/9537
Purity	Protein A/G affinity
UniProt	P20023
Localization	Cell membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This CR2 Antibody / B-Cell Co-Receptor Marker is available for research use only.



CR2 Antibody B-Cell Zone IHC. Immunohistochemistry of Complement Receptor 2 / CR2 in FFPE human tonsil tissue using recombinant mouse monoclonal CR2 antibody, clone rCR2/9537. HRP-DAB brown staining highlights dense membranous labeling of B lymphocytes within germinal center regions, consistent with its role as a B-cell co-receptor, with a subtle reticular pattern reflecting associated follicular dendritic cell networks, while nuclei are counterstained blue. Inset: PBS was used in place of primary antibody as a negative control to confirm specificity of staining. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling prior to staining.



SDS-PAGE analysis of purified, BSA-free recombinant CR2 antibody (clone rCR2/9537) as confirmation of integrity and purity.

Description

Complement receptor 2 (CR2), also known as CD21, is a cell surface glycoprotein that functions as a key component of the B-cell co-receptor complex and plays an essential role in B-cell activation and antigen response. CR2 Antibody / B-Cell Co-Receptor Marker (clone rCR2/9537) is designed to support studies of B-cell biology by enabling detection of CR2 in immune cell populations and lymphoid tissues. CR2 antibody, also referred to as CD21 antibody in the literature, is widely used in investigations of adaptive immunity and B-cell signaling pathways.

CR2 is expressed primarily on mature B lymphocytes and follicular dendritic cells, where it forms a co-receptor complex with CD19 and CD81. This complex enhances B-cell receptor signaling by lowering the threshold for activation when antigen is bound in conjunction with complement fragment C3d. Through this mechanism, CR2 amplifies antigen-specific responses and contributes to efficient humoral immunity. Its expression pattern makes it a valuable marker for identifying B-cell populations and assessing immune activation states.

In addition to its role in immune signaling, CR2 serves as the receptor for Epstein-Barr virus, facilitating viral attachment and entry into B cells. This interaction has important implications for viral pathogenesis and B-cell-associated diseases, making CR2 a target of interest in both immunological and infectious disease research.

In immunohistochemistry, CR2 is typically detected in lymphoid tissues such as tonsil, lymph node, and spleen, where it highlights B-cell-rich areas and contributes to visualization of germinal center organization. Staining patterns often include membranous labeling of B lymphocytes and reticular patterns corresponding to follicular dendritic cell networks. These features allow detailed assessment of lymphoid architecture and immune microenvironment composition.

CR2 is also amenable to analysis by flow cytometry, enabling quantitative measurement of CD21-positive B-cell populations. This is particularly useful in studies examining immune cell subsets, activation states, and disease-associated changes in B-cell populations. The ability to combine tissue-based and cell-based assays provides a comprehensive approach to studying CR2 expression and function.

The recombinant mouse monoclonal clone rCR2/9537 antibody provides reliable detection of CR2 across immunological applications. Its emphasis on B-cell co-receptor biology makes it especially useful for studies of B-cell activation, signaling pathways, and immune system regulation.

For a validated reference of CD21 expression across B cells and follicular dendritic cell networks, see CD21 antibody clone CR2/2754 with supporting multi-application data.

Application Notes

Optimal dilution of the CR2 Antibody / B-Cell Co-Receptor Marker should be determined by the researcher.

Immunogen

A recombinant fragment (within amino acids 100-300) of human Complement receptor 2/CD21 protein was used as the immunogen for the recombinant CR2 antibody.

Storage

Aliquot the CR2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CD21 antibody, Complement receptor 2 antibody, CR2 protein antibody, B-cell co-receptor antibody, Epstein-Barr virus receptor antibody

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