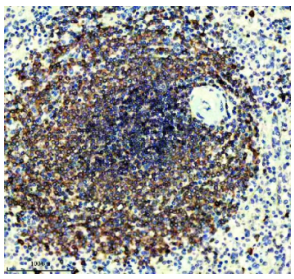
CD22 Antibody / B Cell Internalization and Targeting Antibody [clone CBO-3] (RQ8901)

Catalog No.	Formulation	Size
RQ8901	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

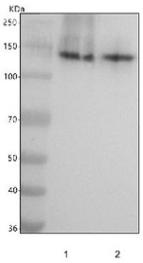
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	CBO-3
Purity	Affinity chromatography
UniProt	P50552
Localization	Cell membrane
Applications	Western Blot : 1:500 Immunohistochemistry (FFPE) : 1:50
Limitations	This CD22 Antibody / B Cell Internalization and Targeting Antibody is available for research use only.



CD22 Antibody Spleen Tissue IHC Staining. Immunohistochemistry analysis of CD22/Siglec-2 expression in FFPE human spleen tissue using CD22 Antibody / B Cell Internalization and Targeting Antibody. HRP-DAB brown staining is concentrated within lymphoid follicles of the white pulp, highlighting dense populations of B lymphocytes with prominent membranous and cytoplasmic localization, while surrounding red pulp regions and non-lymphoid elements remain largely negative. The staining pattern is consistent with CD22 surface expression and its role in receptor internalization and cellular targeting within B cell compartments. Detection was performed using an HRP-conjugated secondary antibody with DAB substrate. Heat-induced epitope retrieval was carried out in pH 8 EDTA buffer for 20 minutes followed by cooling prior to antibody incubation.



CD22 Antibody for WB. Western blot analysis of CD22/Siglec-2 expression using CD22 Antibody / B Cell Internalization and Targeting Antibody in human B cell lymphoma lysates. Lane 1: Raji lysate, Lane 2: Ramos lysate. A band is detected at approximately 130-150 kDa, consistent with the predicted molecular weight of CD22 / CD22 and reflecting its glycosylated form, while potential lower molecular weight species may represent less modified forms of the protein. The banding pattern aligns with the known expression of CD22 in B cell-derived lines and supports its use for western blot analysis of receptor expression and internalization-associated protein processing.

Description

CD22, also known as Siglec-2 and B-cell receptor CD22, is a B cell-specific transmembrane glycoprotein encoded by the CD22 gene that plays a key role in receptor internalization and targeted cellular processes. CD22 Antibody / B Cell Internalization and Targeting Antibody (clone CBO-3) is uniquely positioned for studies focused on receptor-mediated uptake, intracellular trafficking, and targeted delivery mechanisms in B cells. CD22 is expressed on the surface of mature B lymphocytes and is known to undergo rapid internalization following ligand or antibody engagement, a property that distinguishes it from many other surface receptors.

CD22 antibody, also referred to as Siglec-2 antibody or B-cell receptor CD22 antibody in the literature, is widely used in studies examining receptor dynamics and intracellular transport. Upon binding to ligands or antibodies, CD22 is internalized through endocytic pathways into vesicular compartments, where it participates in signaling regulation and receptor recycling. This internalization behavior is closely linked to its role in modulating B cell receptor signaling and maintaining controlled receptor availability at the cell surface.

This CD22 antibody is particularly useful for investigating internalization-dependent processes in B cells. The ability of CD22 to mediate uptake of bound molecules supports its use in studies of receptor trafficking, intracellular signaling, and targeted delivery systems. These processes are important for understanding how B cells regulate receptor turnover and respond to external stimuli.

Clone CBO-3 is a recombinant rabbit monoclonal CD22 antibody that provides consistent and reproducible detection of CD22 in systems investigating receptor internalization and targeting. The recombinant format supports uniform performance across experiments, enabling reliable analysis of dynamic cellular processes and receptor behavior.

The internalization properties of CD22 have also made it an important focus in research exploring targeted approaches to B cell populations, particularly in the context of hematologic malignancies. By leveraging CD22-mediated uptake, studies aim to understand how selective targeting of B cells can be achieved through receptor engagement and intracellular delivery mechanisms.

In addition to its role in internalization, CD22 contributes to regulation of signaling pathways through its intracellular domains, linking receptor uptake with downstream signaling modulation. This integration of trafficking and signaling functions highlights the importance of CD22 as a multifunctional receptor in B cell biology.

Due to its ability to undergo receptor-mediated internalization and its restricted expression on B cells, CD22 is an important target for studies of cellular targeting and intracellular transport. This CD22 antibody supports investigation of receptor dynamics, endocytic pathways, and targeted delivery mechanisms, enabling detailed analysis of B cell function in both normal and disease contexts.

This antibody is part of the broader CD22 antibody collection for studying B cell markers, immune regulation, and hematologic malignancies.

Application Notes

Optimal dilution of the CD22 Antibody / B Cell Internalization and Targeting Antibody should be determined by the

researcher.

Immunogen

A peptide sequence specific to CD22 was used as the immunogen for the CD22 antibody.

Storage

After reconstitution, the CD22 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Siglec-2 antibody, B-cell receptor CD22 antibody, CD22 internalization antibody, CD22 targeting antibody, B cell therapeutic target antibody