

Anti-CD22 Picoband Antibody
Catalog # ABO12377**Specification****Anti-CD22 Picoband Antibody - Product Information**

Application	WB, IHC, FC
Primary Accession	P20273
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for B-cell receptor CD22(CD22) detection. Tested with WB, IHC-P, IHC-F, ICC, FCM in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CD22 Picoband Antibody - Additional Information

Gene ID 933

Other Names

B-cell receptor CD22, B-lymphocyte cell adhesion molecule, BL-CAM, Sialic acid-binding Ig-like lectin 2, Siglec-2, T-cell surface antigen Leu-14, CD22, CD22, SIGLEC2

Calculated MW

95348 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, By Heat
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml

Immunocytochemistry, 0.5-1 µg/ml
Western blot, 0.1-0.5 µg/ml
Flow Cytometry, 1-3¹/₄g/1x10⁶cells

Subcellular Localization

Cell membrane; Single-pass type I membrane protein.

Tissue Specificity

B-lymphocytes.

Protein Name

B-cell receptor CD22

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human CD22 (696-724aa

LAILILAICGLKLQRRWKRTQSQQGLQEN), different from the related mouse sequence by ten amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-CD22 Picoband Antibody - Protein Information

Name CD22 {ECO:0000303|PubMed:1691828, ECO:0000312|HGNC:HGNC:1643}

Function

Most highly expressed siglec (sialic acid-binding immunoglobulin-like lectin) on B-cells that plays a role in various aspects of B-cell biology including differentiation, antigen presentation, and trafficking to bone marrow (PubMed:8627166, PubMed:34330755). Binds to alpha 2,6-linked sialic acid residues of surface molecules such as CD22 itself, CD45 and IgM in a cis configuration. Can also bind to ligands on other cells as an adhesion molecule in a trans configuration (PubMed:20172905). Acts as an inhibitory coreceptor on the surface of B-cells and inhibits B-cell receptor induced signaling, characterized by inhibition of the calcium mobilization and cellular activation. Mechanistically, the immunoreceptor tyrosine-based inhibitory motif domain is phosphorylated by the Src kinase LYN, which in turn leads to the recruitment of the protein tyrosine phosphatase 1/PTPN6, leading to the negative regulation of BCR signaling (PubMed:8627166). If this negative signaling from is of sufficient strength, apoptosis of the B-cell can be induced (PubMed:20516366).

Cellular Location

Cell membrane; Single-pass type I membrane protein

Tissue Location

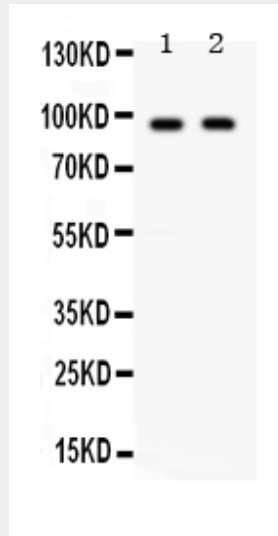
B-lymphocytes.

Anti-CD22 Picoband Antibody - Protocols

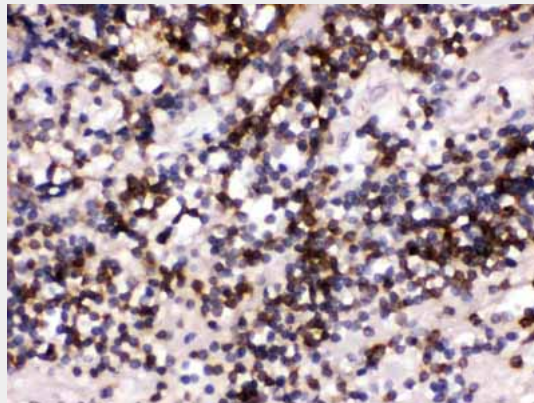
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

Anti-CD22 Picoband Antibody - Images

Anti- CD22 Picoband antibody, ABO12377, Western blottingAll lanes: Anti CD22 (ABO12377) at 0.5ug/mlLane 1: MCF-7 Whole Cell Lysate at 40ugLane 2: 22RV1 Whole Cell Lysate at 40ugPredicted bind size: 95KDObserved bind size: 95KD



Anti- CD22 Picoband antibody, ABO12377, IHC(P)IHC(P): Human Tonsil Tissue

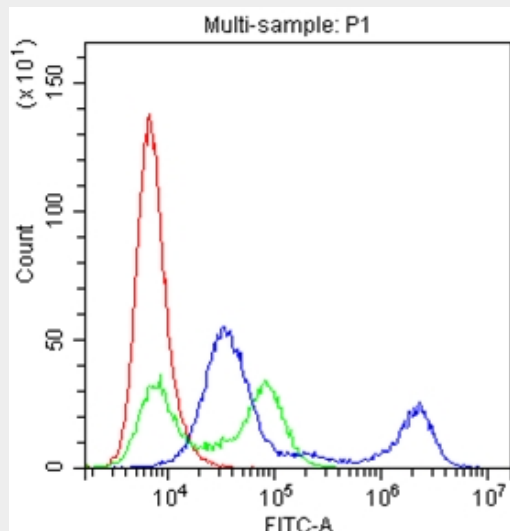


Figure 3. Flow Cytometry analysis of Raji cells using anti-CD22 antibody (ABO12377). Overlay histogram showing Raji cells stained with ABO12377 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD22 Antibody (ABO12377, $1\frac{1}{4}\mu\text{g}/1\times 10^6$ cells) for 30 min at 20°C . DyLight⁷488 conjugated goat anti-rabbit IgG (BA1127, $5-10\frac{1}{4}\mu\text{g}/1\times 10^6$ cells) was used as secondary antibody for 30 minutes at 20°C . Isotype control antibody (Green line) was rabbit IgG ($1\frac{1}{4}\mu\text{g}/1\times 10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-CD22 Picoband Antibody - Background

CD22 is a surface glycoprotein of B lymphocytes that is rapidly phosphorylated on cytoplasmic tyrosines after antigen receptor cross-linking. It is a negative regulator of antigen receptor signaling whose onset of expression at the mature B cell stage may serve to raise the antigen concentration threshold required for B cell triggering. The human CD22 gene is expressed specifically in B lymphocytes and likely has an important function in cell-cell interactions. The B cell coreceptor CD22 plays an important role in regulating signal transduction via the B cell Ag receptor. And CD22 is located within the band region q13.1 of chromosome 19.