

Anti-CD22 / BL-CAM Antibody

Mouse Monoclonal Antibody

Catalog # AH13612

Product Information

Application	WB, IHC-P, IF, FC, E
Primary Accession	P20273
Other Accession	579691
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	BLCAM/1795
Calculated MW	95348

Additional Information

Gene ID	933
Other Names	B-lymphocyte cell adhesion molecule (BL-CAM); B-cell receptor CD22; CD22; Lectin 2; Lyb8; Sialic acid-binding Ig-like lectin 2 (Siglec-2); SIGLEC2; T-cell surface antigen Leu-14
Application Note	ELISA (Use Ab at 2-4ug/ml for coating) (Order Ab without BSA);,Flow Cytometry (0.5-1ug/million cells); Immunofluorescence (0.5-1ug/ml); ,Western Blotting (0.5-1.0ug/ml);,Immunohistology (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris buffer with 1mM EDTA, pH 9.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined.
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Anti-CD22 / BL-CAM Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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:[34330755](#), PubMed:[8627166](#)). 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](#)).

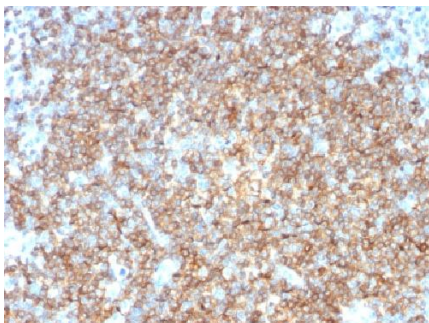
Cellular Location Cell membrane; Single-pass type I membrane protein

Tissue Location B-lymphocytes.

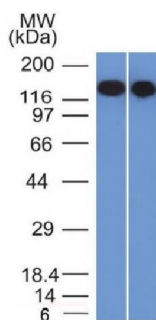
Background

Recognizes a protein of 130-140kDa, identified as CD22 (also known as BL-CAM). CD22 expression is restricted to normal and neoplastic B cells and is absent from other haemopoietic cell types. In B-cell ontogeny, CD22 is first expressed in the cytoplasm of pro-B and pre-B cells, and on the surface as B cells mature to become IgD+. It is not expressed by plasma cells, CD22 is found highly expressed in follicular mantle and marginal zone B-cells, and while germinal center B-cells are relatively weak. CD22 is a member of the immunoglobulin superfamily and serves as an adhesion receptor for sialic acid-bearing ligands expressed on erythrocytes and all leukocyte classes. It also associates with tyrosine kinases and play a role in signal transduction and B-cell activation.

Images



Formalin-fixed, paraffin-embedded human Tonsil stained with CD22 Monoclonal Antibody (BLCAM/1795).



Western Blot Analysis of Raji and Ramos Cell Lysates using CD22 Monoclonal Antibody (BLCAM/1795).