

Anti-CD22 / BL-CAM Antibody Mouse Monoclonal Antibody Catalog # AH13612

#### Specification

### Anti-CD22 / BL-CAM Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW WB, IHC-P, IF, FC, E <u>P20273</u> <u>579691</u> Human Mouse Monoclonal Mouse / IgG1, kappa 95348

#### Anti-CD22 / BL-CAM Antibody - 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 <span class ="dilution\_WB">WB~~1:1000</span><br \><span class ="dilution\_IHC-P">IHC-P~~N/A</span><br \><span class ="dilution\_IF">IF~~1:50~200</span><br \><span class ="dilution\_FC">FC~~1:10~50</span><br \><span class ="dilution\_E">E~~N/A</span>

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.

# Anti-CD22 / BL-CAM 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:<a href="http://www.uniprot.org/citations/34330755">http://www.uniprot.org/citations/34330755</a>



target="\_blank">34330755</a>, PubMed:<a href="http://www.uniprot.org/citations/8627166" target="\_blank">8627166</a>). 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:<a href="http://www.uniprot.org/citations/20172905" target="\_blank">20172905</a>). 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:<a href="http://www.uniprot.org/citations/8627166" target="\_blank">8627166</a>). If this negative signaling from is of sufficient strength, apoptosis of the B-cell can be induced (PubMed:<a href="http://www.uniprot.org/citations/20516366" target="\_blank">20516366</a>).

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

Tissue Location B-lymphocytes.

# Anti-CD22 / BL-CAM Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### Anti-CD22 / BL-CAM Antibody - 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).

# Anti-CD22 / BL-CAM Antibody - 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.