

### **BL-CAM (Ab-807) Antibody**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP50671

## **Specification**

### **BL-CAM (Ab-807) Antibody - Product Information**

Application WB
Primary Accession P20273
Host Rabbit
Clonality Polyclonal

Calculated MW 95 76 86 84 75(R&D 140 ABCAM 150) KDa

Antigen Region 795-824

### BL-CAM (Ab-807) 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

### **Dilution**

WB~~1:1000

### **Format**

Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

## **Storage Conditions**

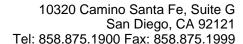
-20°C

### **BL-CAM (Ab-807) 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" 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

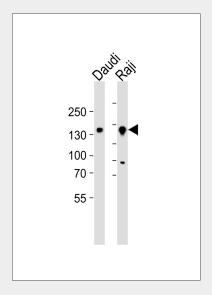
Tissue Location B-lymphocytes.

### **BL-CAM (Ab-807) 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 Cytomety
- Cell Culture

## BL-CAM (Ab-807) Antibody - Images



Western blot analysis of lysates from Daudi, Raji cell line (from left to right), using BL-CAM (Ab-807) Antibody (AP50671). AP50671 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

### BL-CAM (Ab-807) Antibody - Background

Mediates B-cell B-cell interactions. May be involved in the localization of B-cells in lymphoid tissues. Binds sialylated glycoproteins; one of which is CD45. Preferentially binds to alpha-2,6-linked sialic acid. The sialic acid recognition site can be masked by cis interactions with sialic acids on the same cell surface. Upon ligand induced tyrosine phosphorylation in the immune response seems to be involved in regulation of B-cell antigen receptor signaling. Plays a role in positive regulation





through interaction with Src family tyrosine kinases and may also act as an inhibitory receptor by recruiting cytoplasmic phosphatases via their SH2 domains that block signal transduction through dephosphorylation of signaling molecules.

# **BL-CAM (Ab-807) Antibody - References**

Stamenkovic I., et al. Nature 345:74-77(1990). Wilson G.L., et al.J. Exp. Med. 173:137-146(1991). Wilson G.L., et al.J. Immunol. 150:5013-5024(1993). Suzuki Y., et al. Submitted (JUL-2006) to the EMBL/GenBank/DDBJ databases. Grimwood J., et al. Nature 428:529-535(2004).