

Anti-CD22 Antibody

Catalog # AP95736

Product Information

Application	WB, IHC, FC, IF/IC
Primary Accession	P20273
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	95348

Additional Information

Gene ID	933
Other Names	SIGLEC2; 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
Target/Specificity	Recombinant fusion protein of human CD22 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200) IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

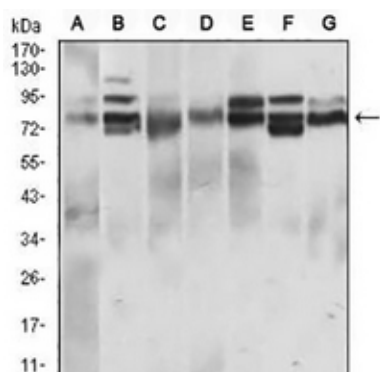
Name	CD22 {ECO:0000303 PubMed:1691828, ECO:0000312 HGNC:HGNC:1643}
Function	Most highly expressed siglec (sialic acid-binding immunoglobulin-like lectin) on B-cells that plays a role in various aspects of B-cell biology including differentiation, antigen presentation, and trafficking to bone marrow (PubMed: 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

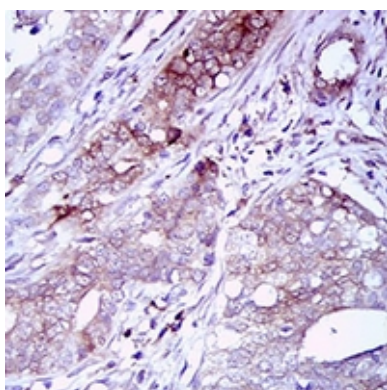
Cell membrane; Single-pass type I membrane protein

Tissue Location

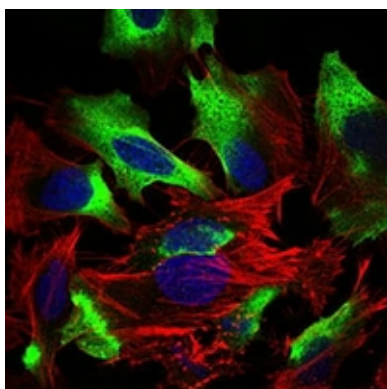
B-lymphocytes.

Images

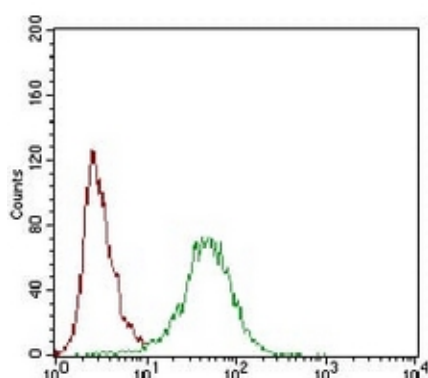
Western blot analysis of CD22 expression in L1210 (A), HeLa (B), HEK293 (C), Jurkat (D), OCM1 (E), A432 (F), NIH/3T3 (G) whole cell lysates. (Predicted band size: 95 kD; Observed band size: 75-95 kD)



Immunohistochemical analysis of CD22 staining in human cervical cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of CD22 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-CD22 Antibody (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.