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CD22 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1852a

Specification

CD22 Antibody - Product Information

Application	**E, WB, IF, FC, IHC**
Primary Accession	P20273
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**95.3kDa KDa**

Description
CD22 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

Immunogen
Purified recombinant fragment of human CD22 (AA: 621-725) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

CD22 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
E~~1/10000
WB~~1/500 - 1/2000
IF~~1/200 - 1/1000
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CD22 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CD22 Antibody - Protein Information

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

Function
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.

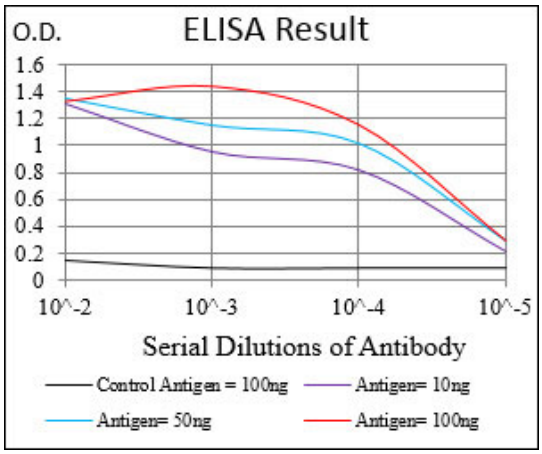
Cellular Location
Cell membrane; Single-pass type I membrane protein

Tissue Location
B-lymphocytes.

CD22 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



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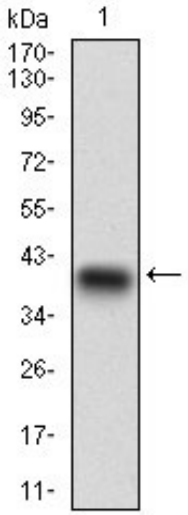

Figure 1: Western blot analysis using CD22 mAb against human CD22 recombinant protein. (Expected MW is 37 kDa)

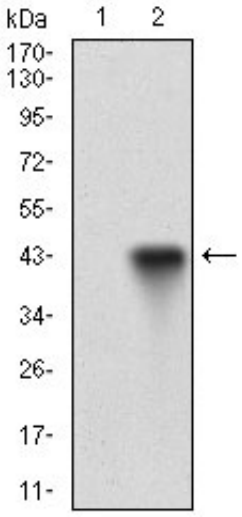

Figure 2: Western blot analysis using CD22 mAb against HEK293 (1) and CD22 (AA: 621-725)-hIgGFc transfected HEK293 (2) cell lysate.

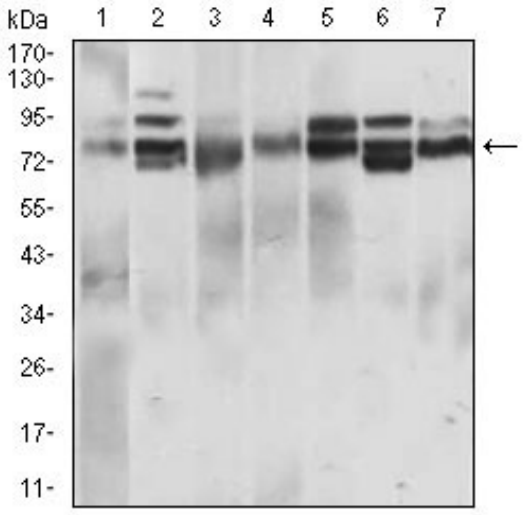

Figure 3: Western blot analysis using CD22 mouse mAb against L1210 (1), Hela (2), HEK293 (3), Jurkat (4), OCM-1 (5), A432 (6) and NIH/3T3 (7) cell lysate.

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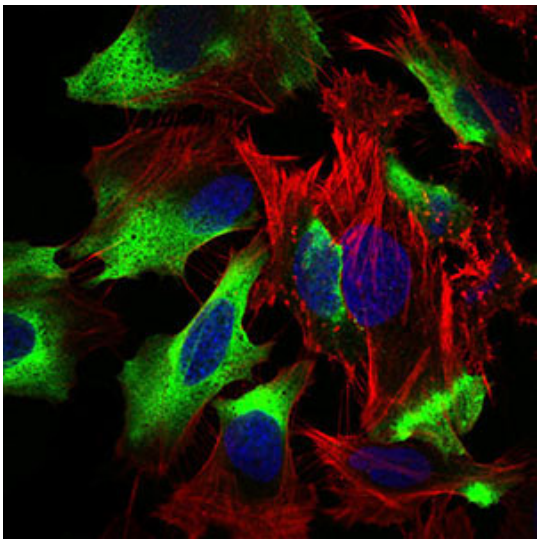

Figure 4: Immunofluorescence analysis of Hela cells using CD22 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

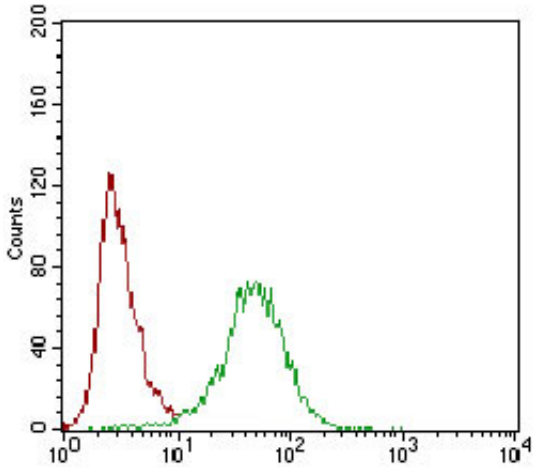

Figure 5: Flow cytometric analysis of Hela cells using CD22 mouse mAb (green) and negative control (red).

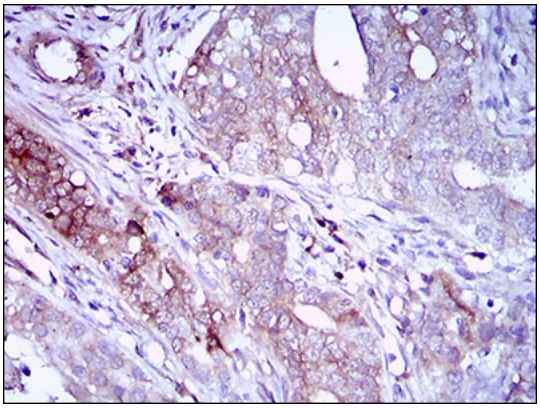

Figure 6: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using ZEB1 mouse mAb with DAB staining.

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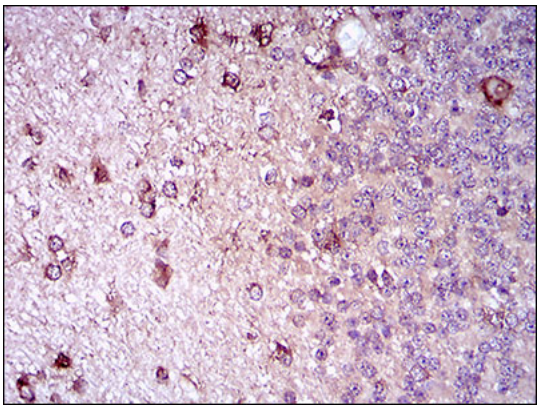

Figure 7: Immunohistochemical analysis of paraffin-embedded cerebellum tissues using ZEB1 mouse mAb with DAB staining.

CD22 Antibody - Background

The protein encoded by this gene is a transmembrane glycoprotein that is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor. Binding of the protein to a ligand induces receptor dimerization and tyrosine autophosphorylation and leads to cell proliferation. Mutations in this gene are associated with lung cancer. Multiple alternatively spliced transcript variants that encode different protein isoforms have been found for this gene. ;

CD22 Antibody - References

1. Cancer Res. 2012 Nov 1;72(21):5556-65. 2. J Innate Immun. 2011;3(4):411-9.