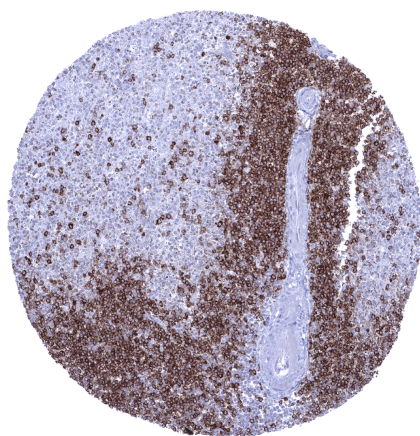


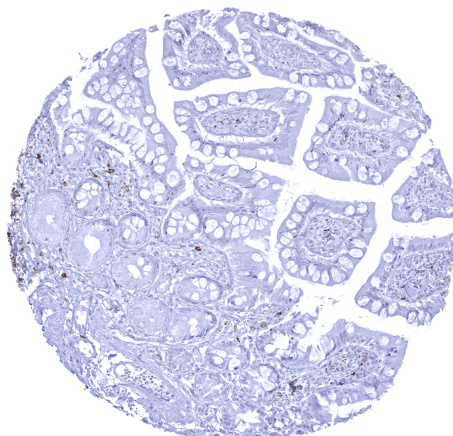
Anti- CD22 Antibody MSVA-022R / Recombinant Rabbit monoclonal

Human SwissProt	P20273
Human Gene Symbol	CD22
Synonyms	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
Specificity	CD22
Immunogen	Recombinant human CD22 fragment
Isotype	Rabbit / IgG
Species Reactivity	Human
Localization	Cell Surface

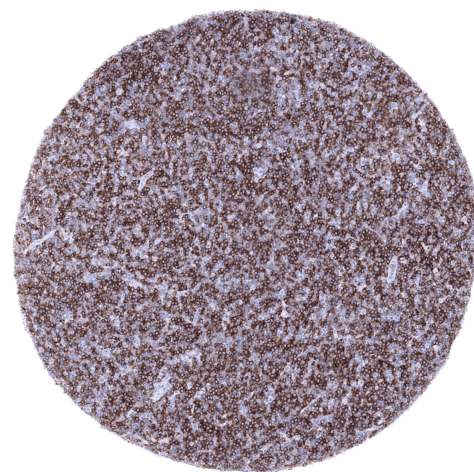
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA
Positive Control	Tonsil or appendix: A strong, predominantly membranous CD22 staining of the germinal centre and mantle zone B-cells as well as of few interfollicular B-cells should be seen.
Negative Control	Tonsil or appendix: A large fraction of the interfollicular lymphocytes and all epithelial cells must not show any CD22 staining.



CD22 positive B-lymphocytes predominate in the white pulp but are only sparse in the red pulp



CD22 positive B-lymphocytes are rare in this sample of ileum mucosa



B-CLL exhibiting strong CD22 staining of tumor cells

Biology

CD22 is a cell surface protein coded by the CD22 gene on 19q13.12. CD22 belongs to the SIGLEC family of lectins and is a member of the immunoglobulin superfamily. It is a transmembrane protein, which binds sialic acid with an immunoglobulin (Ig) domain. CD22 plays a role in the regulation of surface IgM expression on B cells and functions as an inhibitory receptor for B cell receptor signaling. As such, CD22 prevents the excessive activation of the B-cell immune reaction and the development of autoimmune diseases. CD22 is the target of antibody-drug conjugates (inotuzumab ozogamicin, moxetumomab pasudotox) which have been approved for treating hairy cell leukemia and acute lymphoblastic leukemia. CD22 is expressed on the vast majority of B-lymphocytes. CD22 positive cells are thus preferably seen in lymphatic organs especially in germinal centres and mantle zones but can be found in virtually every organ. Cytoplasmic CD22 is expressed at the earliest stages of B-cell differentiation, prior to the expression of CD20. CD22 expression is lost in plasma cells. Among tumors, most immature and mature B-cell neoplasms express CD22 at a variable extent. CD22 immunostaining can be particularly strong in hairy cell leukemia and prolymphocytic leukemia. T cells and their malignant counterparts, except for rare cases, do not express CD22.

Potential Research Applications

- The prevalence of CD22 immunostaining in hairy cell leukemia and other hematological as well as non-hematological neoplasms should be further evaluated.
- The potential of CD22 as a therapeutic target is under investigation.

Protocol Suggestions

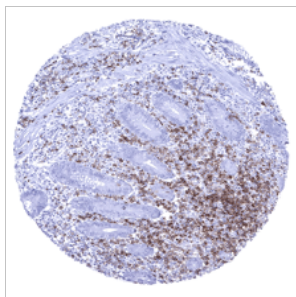
Dilution: 1:150 ; pH 7,8 is optimal. Freshly cut sections should be used (less than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

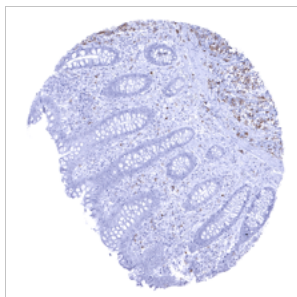
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

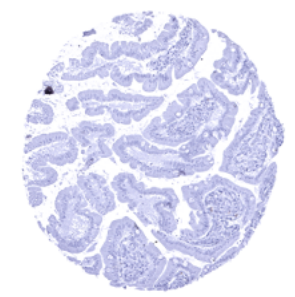
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



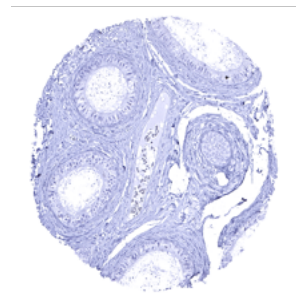
Appendix, mucosa - Abundant CD22 positive B-lymphocytes in the area of a lymph follicle of the appendix mucosa



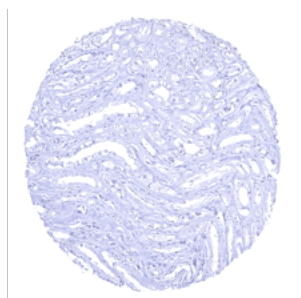
Appendix, mucosa



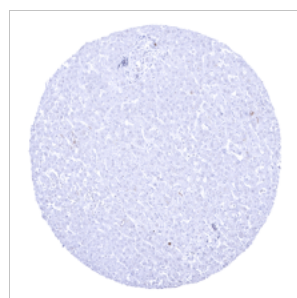
Duodenum, mucosa



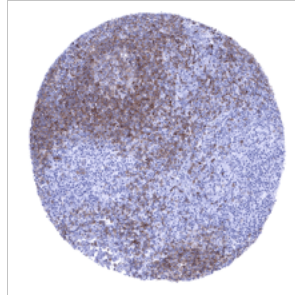
Epididymis



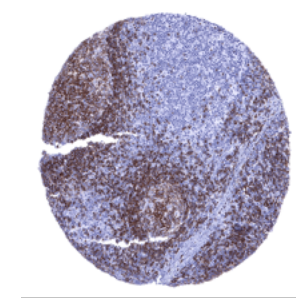
Kidney, medulla



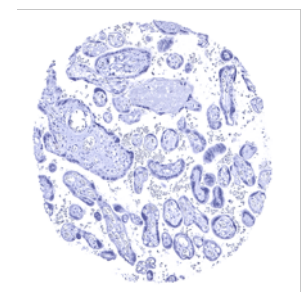
Liver



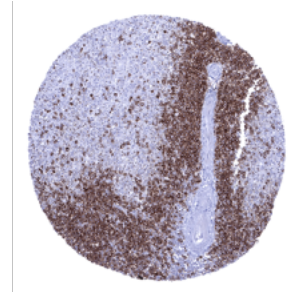
Lymph node - Germinal centre and mantle zone contain numerous CD22 positive B-lymphocytes, while these cells are only rare in the interfollicular zone



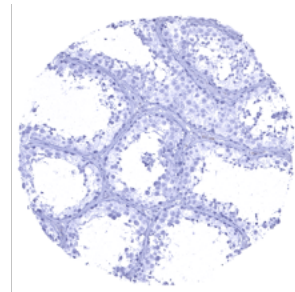
Lymph node - CD22 positive B-lymphocytes predominate in germinal centres and mantle zones but are only sparse in the interfollicular zone



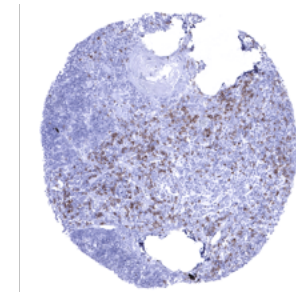
Placenta, mature



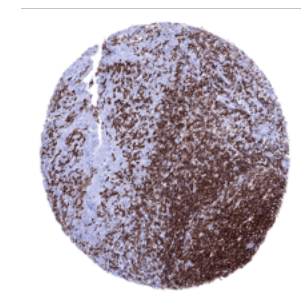
Spleen - CD22 positive B-lymphocytes predominate in the white pulp but are only sparse in the red pulp



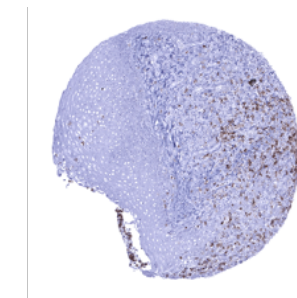
Testis



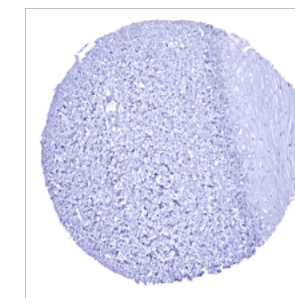
Thymus - CD22 positive B-lymphocytes are rather sparse in the thymus



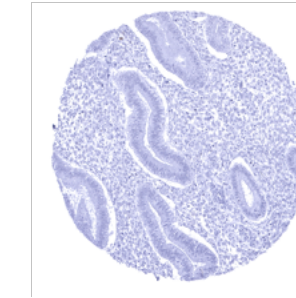
Tonsil - CD22 positive B-lymphocytes are abundant in this sample of the tonsil



Tonsil, surface epithelium



Uterus, ectocervix



Uterus, endometrium (proliferation)