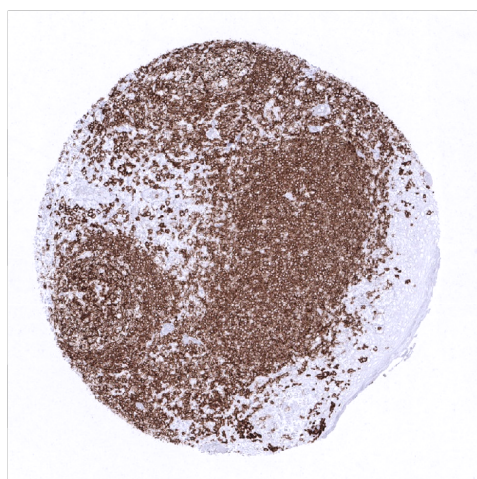


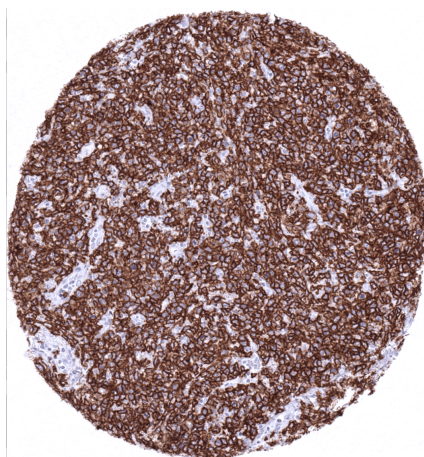
## Anti- CD20 Antibody MSVA-020R / Recombinant Rabbit monoclonal

Human SwissProt	P11836
Human Gene Symbol	MS4A1
Synonyms	APY; ATOPY; B-lymphocyte cell-surface antigen B1; Bp35; Fc epsilon receptor I beta chain; Fc Fragment of IgE high affinity I receptor for beta polypeptide; FCER1B; High affinity immunoglobulin epsilon receptor subunit beta; IgE Fc receptor subunit beta; IGEL; IGER; IGHER; LEU16; Leukocyte surface antigen Leu-16; Ly44; MS4A1; MS4A2
Specificity	CD20
Immunogen	Recombinant fragment of human CD20
Isotype	Rabbit / IgG
Species Reactivity	Human

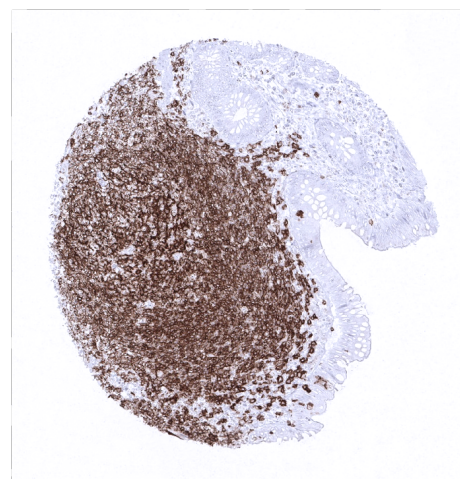
Localization	Cell Surface
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS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



In the tonsil, germinal centre B-lymphocytes stain CD20 positive, while the surface epithelium lacks CD20 staining.



Strong diffuse CD20 expression in a diffuse large B-cell lymphoma of the testis.



Strong CD20 positivity is seen in a follicular lymphocytic infiltrate in the appendix mucosa while epithelial cells do not stain.

### Biology

The B-lymphocyte antigen CD20 is expressed on the surface of all B-cells beginning at the pro-B phase and progressively increasing in concentration until maturity. CD20 is no longer expressed on plasma blasts and plasma cells. The protein has no known natural ligand and it is suspected to act as a calcium channel in the cell membrane. CD20 enables optimal B-cell immune response, specifically against T-independent antigens. CD20 is the target of several monoclonal antibodies such as rituximab, obinutuzumab and others for the treatment of B cell neoplasias and B cell-mediated autoimmune diseases.

### Potential Research Applications

- The clinical significance of the number of intratumoral CD20 positive lymphocytes is under intensive research.
- CD20 is a key component of multicolor assays analyzing the role of lymphocyte subsets in cancers and other diseases.
- The prevalence of a positive CD20 immunostaining in hematological and non-hematological neoplasms should be further evaluated.

### 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).

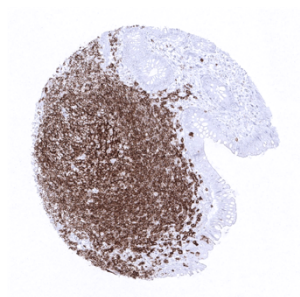
### Limitations

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

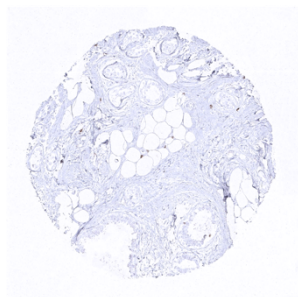
Not for resale without express authorization

### Warranty

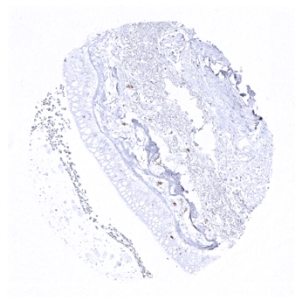
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product. Not for resale without express authorization.



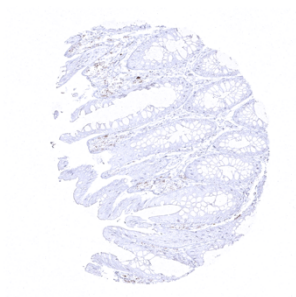
Appendix, mucosa - Strong CD20 positivity is seen in a follicular lymphocytic infiltrate in the appendix mucosa



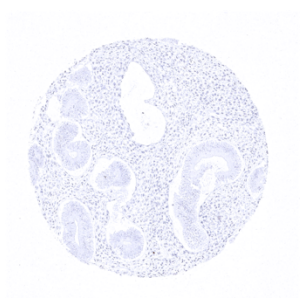
Breast



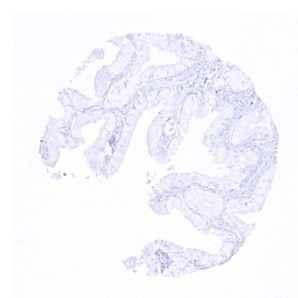
Bronchus, mucosa



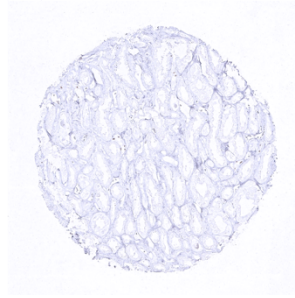
Colon descendens, mucosa



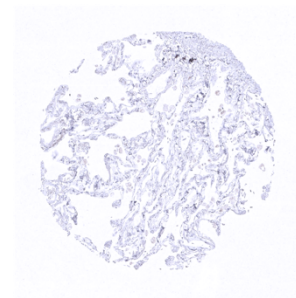
Endometrium, proliferation



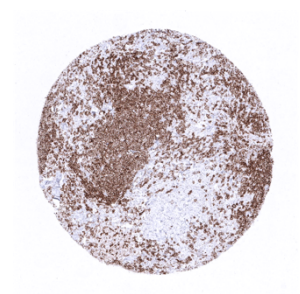
Gallbladder, epithelium



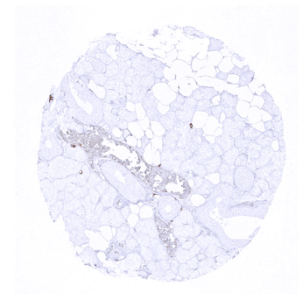
Kidney, medulla



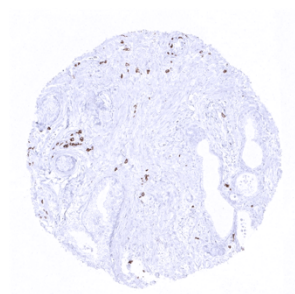
Lung



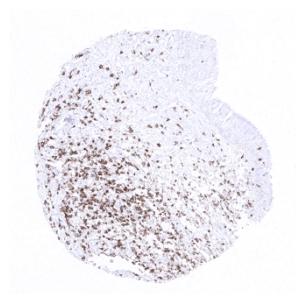
Lymph node



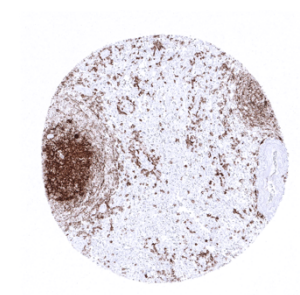
Parotid gland



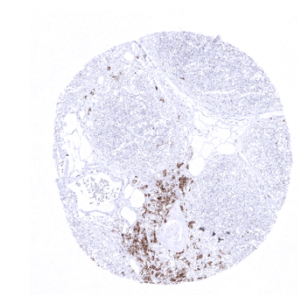
Prostate



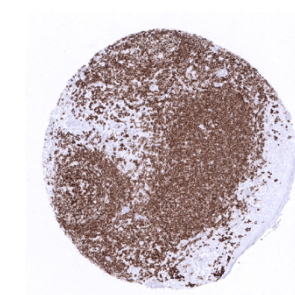
Sinus paranasales



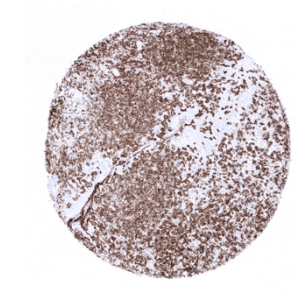
Spleen - In the spleen, many lymphocytes in the white pulpa stain CD20 positive, while only few cells in the red pulpa show CD20 expression



Thymus - In the thymus, CD20 positivity is only seen in a limited number of medullary lymphocytes



Tonsil, surface epithelium -In the tonsil, germinal centre B-lymphocytes stain CD20 positive, while the surface epithelium lacks CD20 staining



Tonsil