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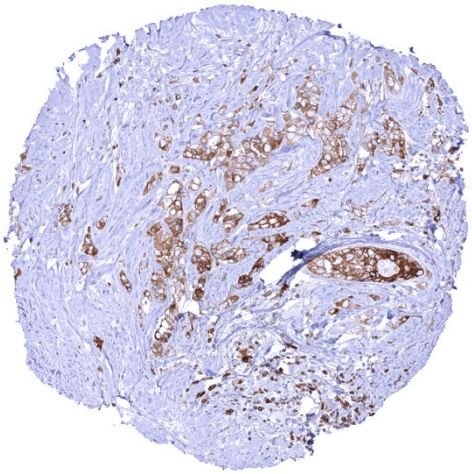
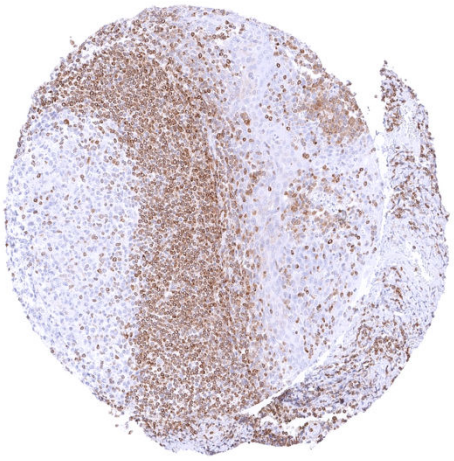
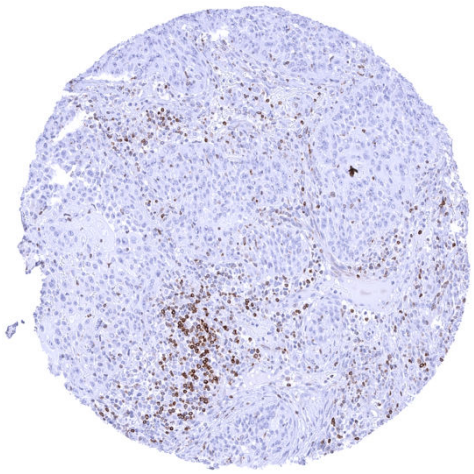
Anti- Bcl-2 Antibody
MSVA-402M/ Recombinant Mouse monoclonal

Human SwissProt	P10415
Human Gene Symbol	Bcl-2
Synonyms	Apoptosis regulator Bcl-2, B-cell CLL/lymphoma-2
Specificity	Bcl-2
Immunogen	Recombinant human Bcl-2 fragment
Isotype	Mouse / IgG1, kappa
Species Reactivity	Human

Localization	Cytoplasmic
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	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Tonsil: A strong cytoplasmic bcl-2 staining should be seen in most interfollicular lymphocytes while most germinal centre cells are bcl-2 negative.
Negative Control	Tonsil: The vast majority of lymphocytic cells from germinal centres must be bcl-2 negative while interfollicular lymphocytes are mostly positive.

Biology

Bcl-2 (B-cell lymphoma 2) is the founding member of the bcl-2 family of proteins which all have a role in regulating apoptosis. Bcl-2 is a potent inhibitor of apoptosis. The protein is located at the outer membrane of mitochondria, where it inhibits the activity of pro-apoptotic proteins which often act at the mitochondrial membrane to promote its permeabilization. Bcl-2 is expressed in a broad range of different tissues and cell types. It is especially high in a large fraction of “non germinal centre” lymphocytic cells, ovarian stroma, and the thyroid. Considering the pivotal importance of apoptosis for the homeostasis of all tissues, bcl-2 has a role in many disease types including neurodegenerative, cardiovascular, autoimmune, infectious diseases, and cancer. Alterations of the bcl-2 gene have been identified as a key driving event in cancer where high bcl-2 expression is a cause for poor prognosis and resistance to cancer treatments. Bcl-2 expression of variable intensity can occur in all types of cancer. It is particularly common in follicular lymphoma. Bcl-2 is an emerging drug target. Venetoclax, a bcl-2 specific small inhibiting molecule, has been approved for the treatment of several neoplasms of hematopoietic and lymphatic tissues.

Potential Research Applications

-The prevalence and clinical significance of bcl-2 expression in different cancer types is insufficiently explored.
-The role of bcl-2 in cells of the tumor microenvironment and its potential inhibition needs to be investigated.
-The potential of bcl-2 inhibition in subtypes of solid cancers needs to be investigated.
-The role of bcl-2 and its inhibition in neurodegenerative, cardiovascular, autoimmune, and infectious diseases needs to be explored.

Protocol Suggestions

Dilution: 1:100 - 1:200; pH 7,8 is optimal. Freshly cut sections should be used (more 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.

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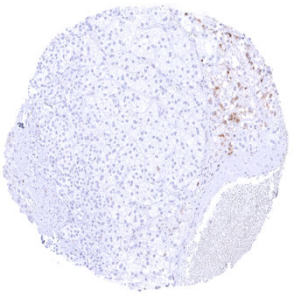
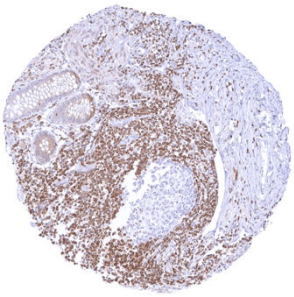
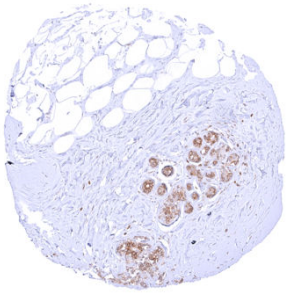


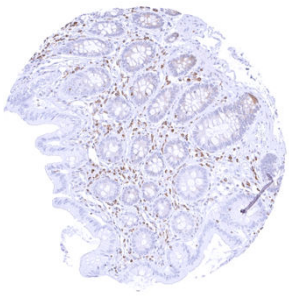
Adrenal gland – Moderate cytoplasmic bcl-2 staining of medullary cells while cortical cells are negative.



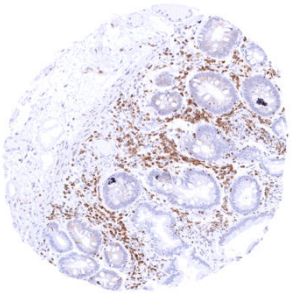
Appendix, mucosa – Cytoplasmic bcl-2 staining is largely limited to



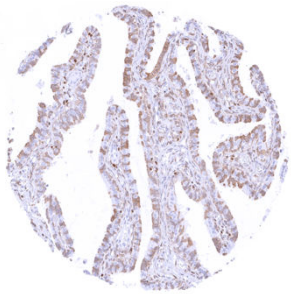
Breast – Distinct cytoplasmic bcl-2 staining of epithelial cells with



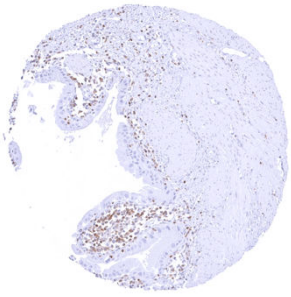
Colon descendens, mucosa



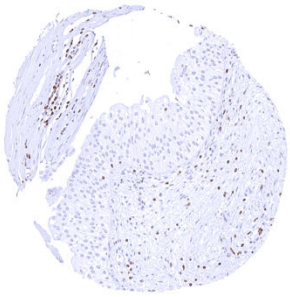
Duodenum, mucosa – Cytoplasmic bcl-2 staining is



Fallopian tube, mucosa – Strong cytoplasmic bcl-2 staining of a

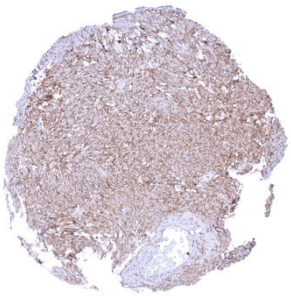


Gallbladder, epithelium

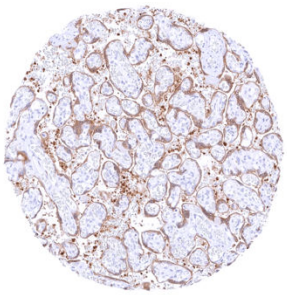


Kidney, pelvis, urothelium

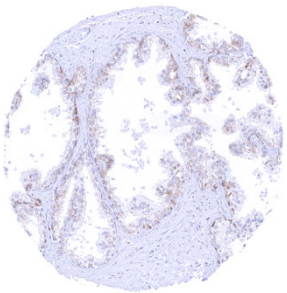
Lymph node – Strong bcl-2 positivity of a large fraction of lymphocytic cells in the interfollicular area and around germinal centres while almost all cells in germinal centres are bcl-2 negative.



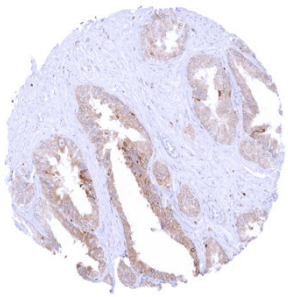
Ovary, stroma – Strong cytoplasmic bcl-2 staining of stroma cells.



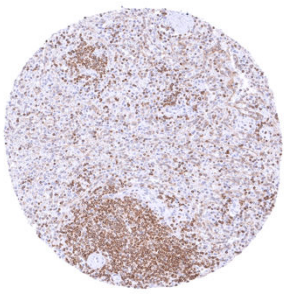
Placenta, mature – Moderate to strong cytoplasmic bcl-2 staining of trophoblast cells.



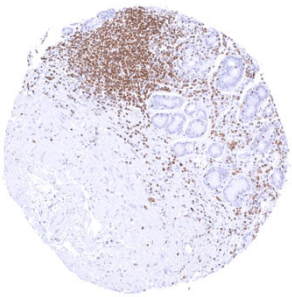
Prostate – Weak to moderate bcl-2 staining of a fraction of basal cells.



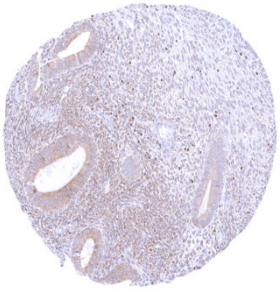
Seminal vesicle – Moderate to strong bcl-2 staining of epithelial cells.



Spleen – Strong bcl-2 positivity of the lymphocytes of the white



Stomach, antrum – The epithelium is bcl-2 negative. Bcl-



Uterus, endometrium (proliferation) – Weak to moderate cytoplasmic bcl-2