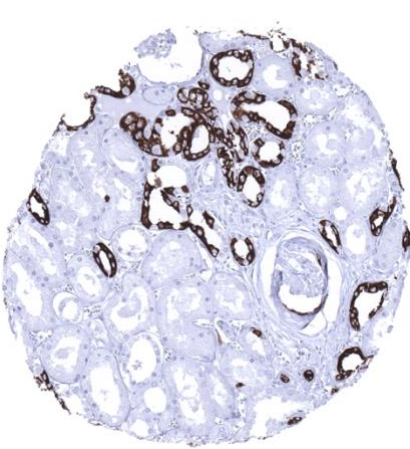


Anti-Cytokeratin 19 Antibody MSVA-619M / Mouse monoclonal

Human SwissProt	P08727
Human Gene Symbol	KRT19
Synonyms	k19; k1cs; Keratin 19 Keratin Type I 40kD; krt19
Specificity	Cytokeratin 19
Immunogen	MCF-7 human breast carcinoma cells
Isotype	Mouse / IgG1,
Species Reactivity	Human
Localization	Cytoplasmic

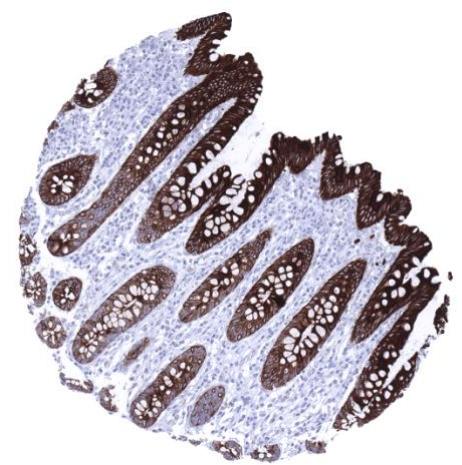
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Tris Buffer, pH 7,3 – 7,7 with 0.05% BSA & <0.1% azide.
Positive Control	Colon/appendix (all enterocytes are positive) and oesophagus (basal cells are positive).
Negative Control	Colon/appendix (all non-epithelial cells are negative) and oesophagus (all non-epithelial and usually also all supra-basal squamous epithelial cells are negative).



In the kidney, a large fraction of the cells of the distal tubuli and collecting ducts as well as parietal epithelial cells of Bowman capsule show strong Cytokeratin 19 immunostaining



Papillary carcinoma of the thyroid with strong cyto keratin 19 immunostaining



Colon mucosa showing strong Cytokeratin 19 positivity in all epithelial cells

Biology

Cytokeratin 19 (CK19), also termed keratin 19 (KRT19) is part of the cytoskeletal scaffold within epithelial cells. Immunohistochemical analysis of cyto keratin 19 is often applied in diagnostic pathology because the protein is abundantly expressed in the majority of epithelial tumors. In normal tissues, strong KRT19 immunostaining all epithelial cells of the intestinal mucosa, gallbladder, intra- and extrahepatic bile ducts, interlobular and intercalated ducts of the pancreas, intercalated and striated ducts, myoepithelial cells and glandular cells of salivary glands, all epithelial cells and corpuscles of Hassall's in the thymus, tonsil crypts, epididymis, seminal vesicle, urothelium, endocervix, endometrium and fallopian tube, pneumocytes, respiratory epithelium, bronchial glands, stomach, luminal cells of the breast. In the kidney, a large fraction of the cells from the distal tubuli and collecting ducts as well as parietal epithelial cells of the Bowman capsule are strongly KRT19 positive. are KRT19 positive. In the thyroid, a weak to moderate staining commonly occurs. In the epidermis stains and in non-keratinizing squamous epithelium, the basal cells are KRT19 positive while the remaining layers are mostly negative. Myometrium does also show weak to moderate KRT19 expression. KRT19 expression absent in hepatocytes, adrenal gland, testis, decidua, ovary, mesenchymal tissues (except myometrium), hematological cells, spleen, lymph nodes, and the brain. KRT19 is almost always expressed in various important cancers such as in adenocarcinomas of the stomach, esophagus, and the colorectum, breast cancers, ovarian cancers, endometrium carcinoma cholangiocarcinomas, and urothelial carcinomas. CK19 immunostaining is usually

absent in hepatocellular carcinoma, adrenal adenomas, seminomas, hematological malignancies, and most mesenchymal tumors.

Potential Research Applications

-The diagnostic utility of KRT19 expression analysis should be investigated in a large cohort of tumors from different entities.

Protocol Suggestions

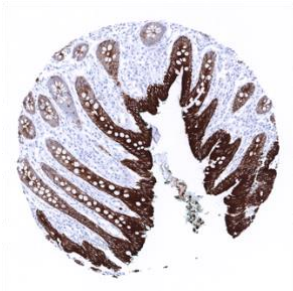
Dilution: 1:150; pH 7,8 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

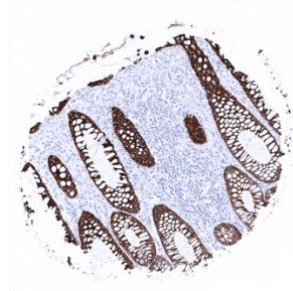
This antibody is available for **research use only** and is not approved for use in diagnostics.
Not for resale without express authorization.

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.



Appendix, mucosa



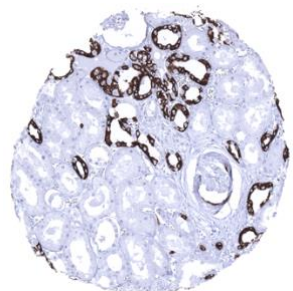
Colon descendens, mucosa



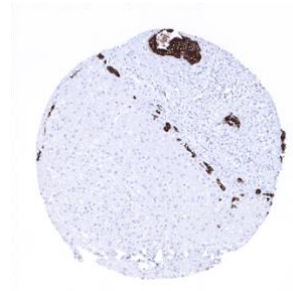
Ektocervix - In non-keratinizing squamous epithelium, the basal cells are CK19 positive while the remaining layers are usually negative



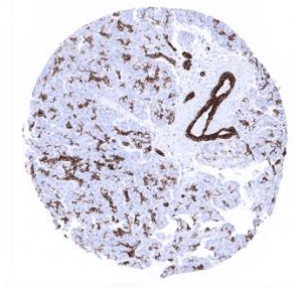
Esophagus, squamous epithelium - In non-keratinizing squamous epithelium, the basal cells are CK19 positive while the remaining layers are usually negative



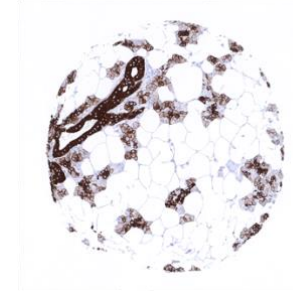
Kidney, cortex - In the kidney, a large fraction of the cells of the distal tubuli and collecting ducts as well as parietal epithelial cells of the Bowman capsule show strong Cytokeratin 19 immunostaining



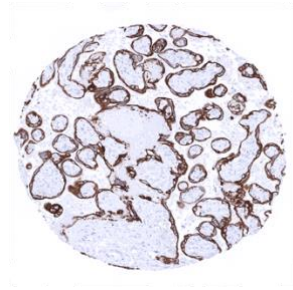
Liver - In the liver, cytokeratin 19 immunostaining can be seen in intrahepatic bile ducts, including small periportal ducts



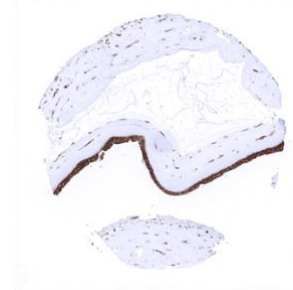
Pancreas - In the pancreas, cytokeratin 19 positivity is seen in interlobular and intercalated ducts of the pancreas



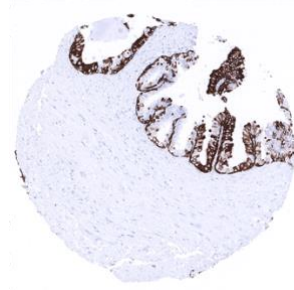
Parotid gland - In salivary glands, cytokeratin 19 is seen in intercalated and striated ducts, myoepithelial cells (and to a lesser and variable extent) glandular cells of salivary glands



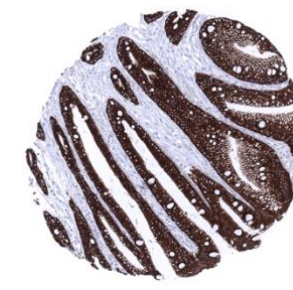
Placenta, mature - The syncytiotrophoblast, and to a somewhat lesser extent the cytotrophoblast of the placenta are cytokeratin19 positive



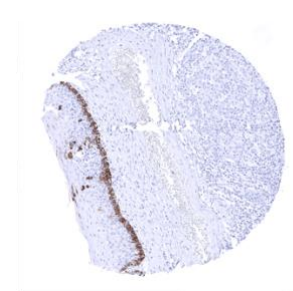
Placenta, mature, amnion and chorion - Amnion and chorion cells of the placenta are cytokeratin positive



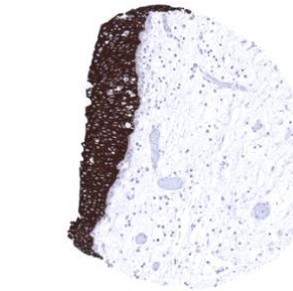
Prostate - A variable cytokeratin 19 staining intensity of both apical and basal cells can occur in the prostate but not in all glands and not in all samples



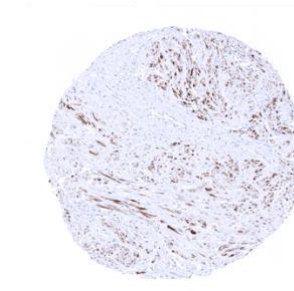
Stomach, corpus - CK19 staining is strong in most epithelial cells in the stomach corpus except staining being absent in parietal cells and only weak in chief cells



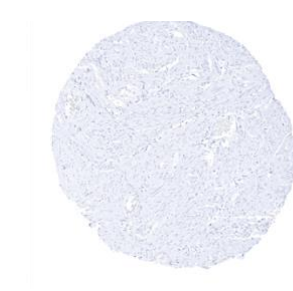
Tonsil, surface epithelium - In non-keratinizing squamous epithelium, the basal cells are CK19 positive while the remaining layers are usually negative



Urinary bladder, urothelium - Urothelium always shows a strong CK19 positivity



Uterus, myometrium - A weak to moderate cytokeratin 19 immunostaining can be seen in smooth muscle of the myometrium



Uterus, myometrium - Cytokeratin 19 positivity is not always seen in myometrium