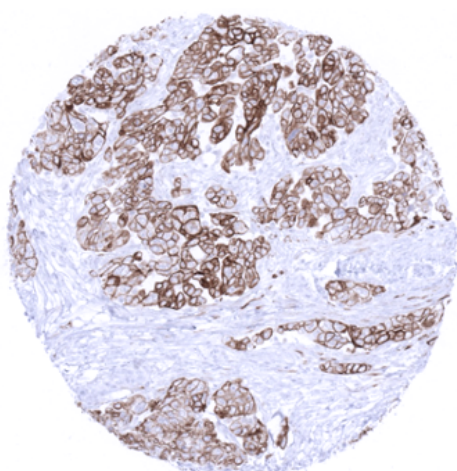


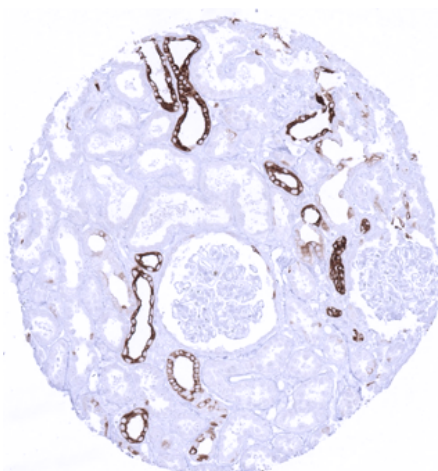
Anti-Cytokeratin 7 Antibody MSVA-607R / Recombinant Rabbit monoclonal

Human SwissProt	P08729
Human Gene Symbol	KRT7
Synonyms	CK-7, K2C7, Keratin 55K Type II Cytoskeletal, Keratin Simple Epithelial Type 1 K7, Keratin Type II Cytoskeletal 7, Krt2-7, KRT7, Sarcolectin, SCL, Type II Mesothelial Keratin K7, Type-II Keratin Kb7
Specificity	Cytokeratin 7
Immunogen	Recombinant fragment of human CK7 protein
Isotype	Rabbit / IgG, kappa
Species Reactivity	Human

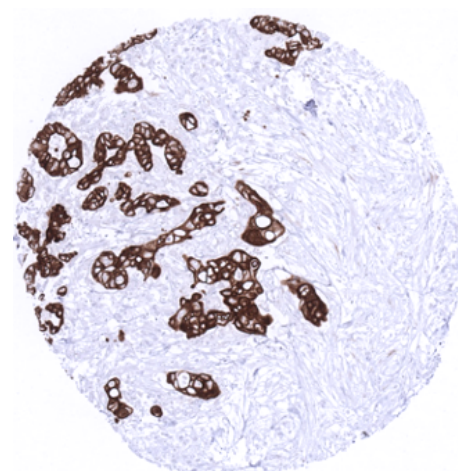
Localization	Cell Surface
Storage & Stability	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody in Tris pH 7,3-7,7 with 1% BSA, <0,1% NaN ₃ .
Positive Control	Kidney tissue (moderate to strong staining of renal collecting ducts and scattered epithelial cells in the Bowman capsule)
Negative Control	Liver (hepatocytes), pancreas (acinar cells)



High-grade serous ovarian cancer with strong CK7 expression.



Collecting ducts and few scattered epithelial cells of the Bowman capsule stain CK7 positive in normal kidney.



Strong CK7 expression in an adenocarcinoma of the pancreas.

Biology

Cytokeratin 7 (CK7) is a basic high molecular weight Type II cytokeratin. It is an integral part of the cytoskeleton of various mostly glandular epithelial cell types in various organs. Because of its differential expression in carcinomas from different origins, CK7 immunohistochemistry can be used as an aide for defining the origin of cancer tissues. A strong CK7 expression occurs in urothelium, epithelial cells of the gallbladder, intercalating ducts of the pancreas, intrahepatic bile ducts, salivary glands, excretion ducts of Brunner glands, collecting ducts and scattered epithelial cells in the Bowman capsule (but not tubuli) of the kidney, seminal vesicle, epididymis, respiratory epithelium, pneumocytes of the lung, breast (predominantly luminal cells), the majority of cervical and endometrial glands of the uterus, fallopian tube, epithelial cells of the placenta (but weak in amnion cells), sebaceous glands (moderate intensity) and the thyroid. A weak CK7 staining can be seen in some samples of esophageal epithelium and a moderate to strong CK7 positivity occurs in Hassall's corpuscles, a fraction of squamous epithelial cells of tonsil crypts, and also some scattered squamous cells of the tonsil surface epithelium. In the gastrointestinal tract, a moderate staining is seen in the majority of surface cells of the stomach mucosa and in some scattered cells of the villi in the small intestine and the colonic crypts. Because of a highly complementary staining pattern with CK20, CK7 IHC is often used together with CK20.

Potential Research Applications

-As the literature is partly confusing, the diagnostic utility of KRT7 expression analysis (in combination with KRT20 analysis) should be investigated in a large cohort of tumors from different entities.

-The biologic/clinical significance of aberrant CK7 expression in cancers needs to be evaluated (for example: what are the specific properties of CK7 negative pancreatic cancers or CK7 positive colorectal cancers?)

Protocol Suggestions

Dilution: 1:150 ; pH 9,0 is optimal. Freshly cut sections should be used (less than 10 days between cutting and staining).

Suggested manual protocol: heat-induced antigen retrieval for 5 minutes in an autoclave at 121°C in pH 9,0 buffer. Apply MSVA-107R at 37°C for 60 minutes at a dilution of 1:150.

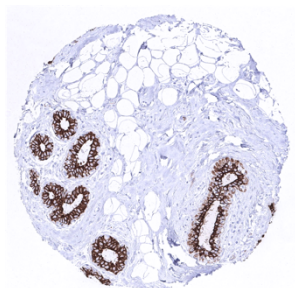
Limitations

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

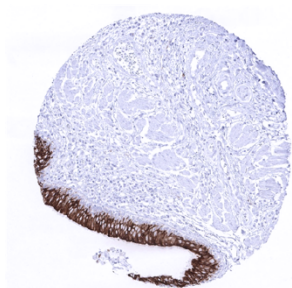
Not for resale without express authorization.

Warranty

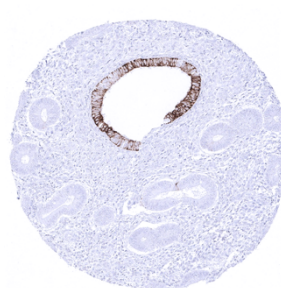
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



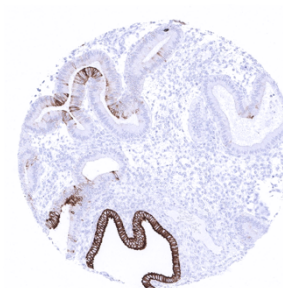
Breast - Luminal cells stain express CK7 markedly stronger than basal cells



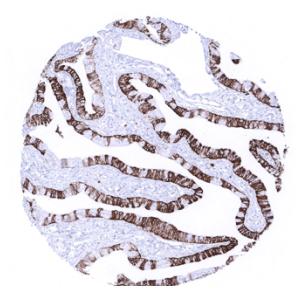
Bronchus, mucosa - Strong CK7 immunostaining of all cell types except basal cells.



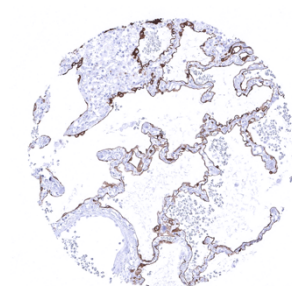
Endometrium, proliferation - The CK7 findings are variable in the endometrium. Not all glands show CK7 positivity



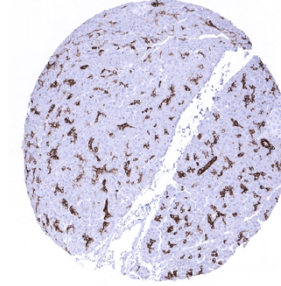
Endometrium, secretion - The CK7 findings are variable in the endometrium. Not all glands show CK7 positivity



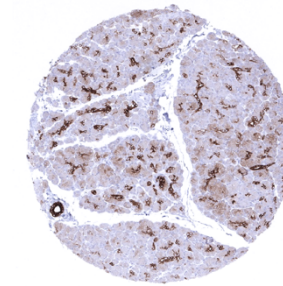
Fallopian tube, mucosa - All cells but ciliated cells stain CK7 positive in the fallopian tube



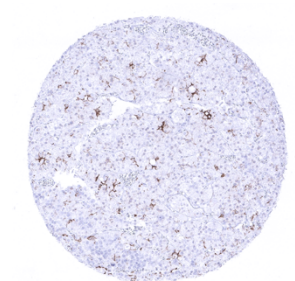
Lung - Moderate intensity CK7 positivity of pneumocytes



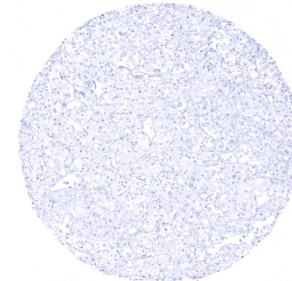
Pancreas - Strong CK7 immunostaining of centroacinar cells of small intercalated ducts in the pancreas



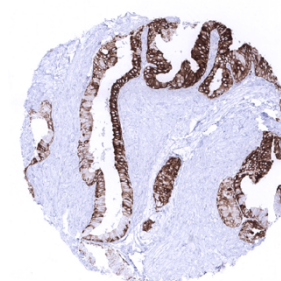
Pancreas - Strong CK7 immunostaining of centroacinar cells of small intercalated ducts in the pancreas. A much weaker membranous and cytoplasmic staining of acinar cells can regionally be seen in some cases



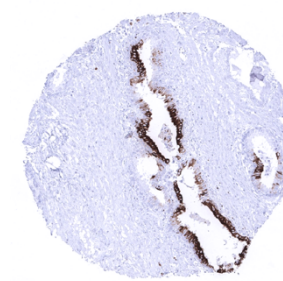
Pituitary, anterior lobe - Few CK7 cells can be seen in the adenohypophysis in some cases



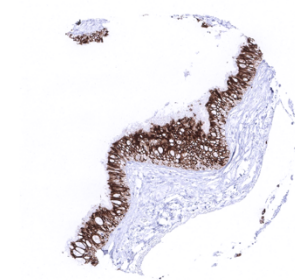
Pituitary, anterior lobe - Not all samples derived from the adenohypophysis show focal CK7 expression



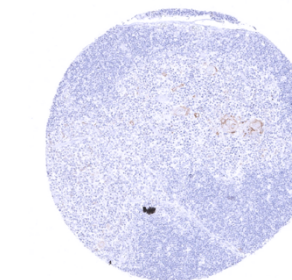
Prostate - CK7 immunostaining is variable in the prostate. Focal staining of acinar and basal cells in this sample



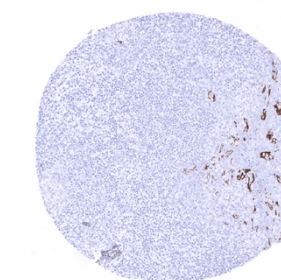
Prostate - CK7 immunostaining is variable in the prostate. Focal staining of acinar cells and absence of staining of basal cells in this sample



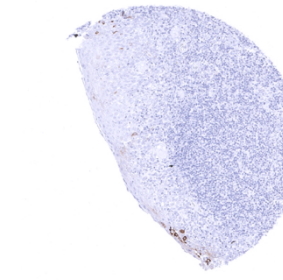
Sinus paranasales - Strong CK7 immunostaining of ciliated and goblet cells. Basal cells exhibit only a weak staining



Thymus - Weak CK7 immunostaining of some elements of Hassal bodies in the thymus



Tonsil - A small fraction of squamous cells stain CK7 positive in the crypt epithelium of the tonsil



Tonsil, surface epithelium - Few scattered squamous cells may stain CK7 positive in the surface epithelium of the tonsil