MS Validated Antibodies

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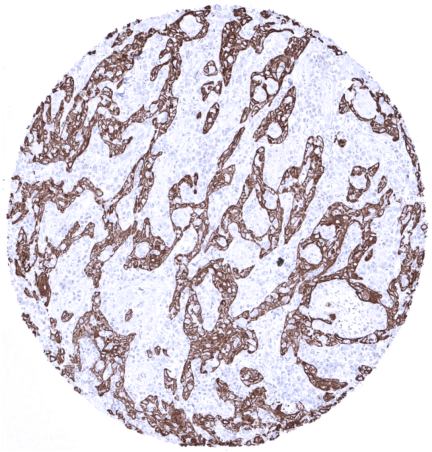
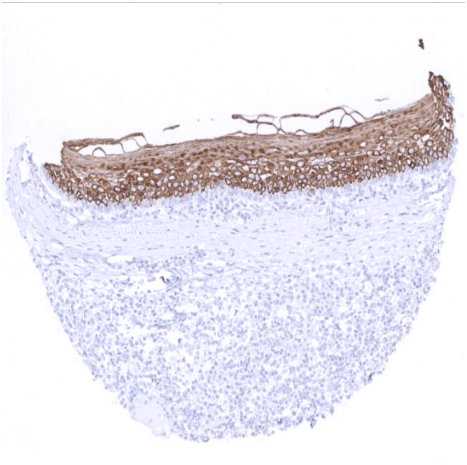
Anti-Cytokeratin 6 Antibody
MSVA-606R / Recombinant Rabbit monoclonal

Human SwissProt	P02538; P04259; P48668
Human Gene Symbol	KRT6A; KRT6B; KRT6C
Synonyms	CK6A, CK6B, CK6C, CK6D, CK6E, Keratin Type II Cytoskeletal 6A, Keratin Type II Cytoskeletal 6B, Keratin Type II Cytoskeletal 6C, Keratin Type II Cytoskeletal 6D, Keratin Type II Cytoskeletal 6E, KRT6, KRT6A, KRT6B, KRT6C, KRT6D, KRT6E
Specificity	Cytokeratin 6
Immunogen	Recombinant human Cytokeratin 6 protein fragment
Isotype	Rabbit / IgG1,
Species Reactivity	Human

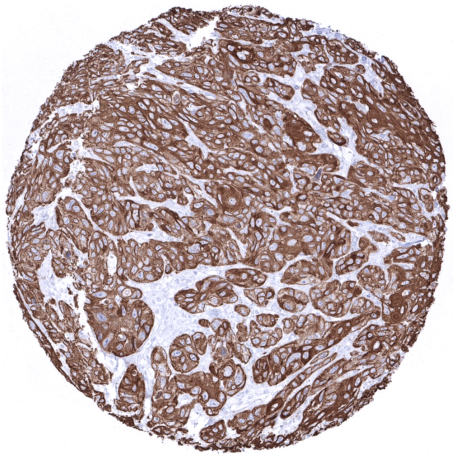
Localization	Cytoplasmic
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Tris Buffer, pH 7,3 – 7,7 with 0.05% BSA & <0.1% azide.
Positive Control	Tonsil: a strong KRT6 staining should be seen in all epithelial cells of the surface epithelium except the basal cell layer where staining should be absent or weak.
Negative Control	Tonsil: KRT6 staining should be absent in lymphocytes and all other mesenchymal cells.



Strong Cytokeratin 6 immunostaining in a squamous cell carcinoma of the vulva



Squamous epithelium of the tonsil surface shows strong cytokeratin 6 immunostaining of all cell layers except basal cells.



Squamous cell carcinoma of the uterine cervix with strong Cytokeratin 6 positivity.

Biology

Cytokeratin 6 (CK6) or keratin 6 (KRT6) is a basic high molecular weight Type II cytokeratin. It is an integral part of the cytoskeleton of various mostly squamous epithelial cell types in various organs. The three keratin 6 isoforms 6A, 6B and 6C share more than 99% similarity in their DNA coding sequences and are coded by neighboring genes on 12q. All keratin 6 isoforms form heteropolymers with keratin 16 and/or keratin 17. In normal tissues KRT6 occurs in the superficial cell layers – but not the basal cell layer - of all squamous epithelia irrespective of their origin. KRT6 immunostaining is also seen hair follicles and sebaceous glands, a fraction of the squamous cells in Tonsil crypts and in corpuscles of Hassall's but not in other epithelial cells of the thymus. Cytokeratin 6 is also expressed in intercalated ducts of salivary and bronchial glands, basal cells and sometimes also ciliated cells (but not ciliae) of respiratory epithelium, few scattered endometrial cells (not in all samples), and amnion/chorion cells but not trophoblastic cells of the placenta. KRT6 immunostaining is absent in urothelium, lung, liver, pancreas, prostate, seminal vesicle, epididymis, testis, kidney, gastrointestinal epithelial cells, Brunner glands, fallopian tube, adrenal gland, thyroid, parathyroid gland, brain, adeno- and neurohypophysis, spleen, lymph node, all hematopoietic cell types, and all mesenchymal tissues.
CK6 expression is seen in almost all squamous cell carcinomas irrespective of their origin. KRT6 is also seen in 30-50% of urothelial carcinomas of the urinary bladder, 20-30% of pancreatic adenocarcinomas, 10-20% of cholangiocarcinomas of the liver, and in other cancers.

Potential Research Applications

-The potential diagnostic utility of KRT6 expression analysis (as compared to KRT5/6 analysis) needs to be investigated.
-The clinical significance of KRT6 expression needs to be evaluated in tumor types containing significant subgroups of KRT6 positive and negative tumors.

Protocol Suggestions

Dilution: 1:150 ; pH 9 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.

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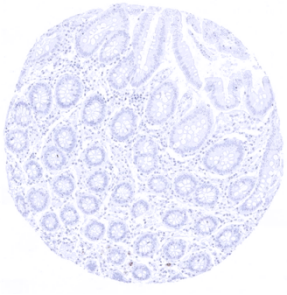
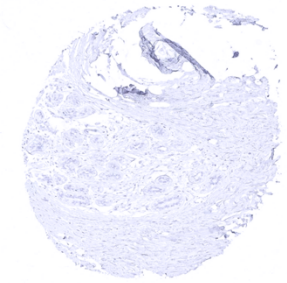
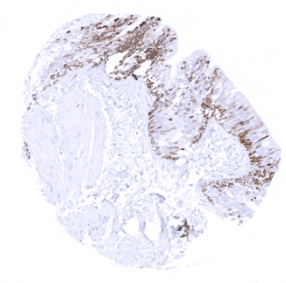


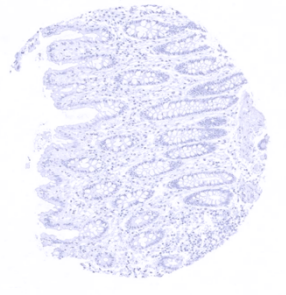
Appendix, mucosa



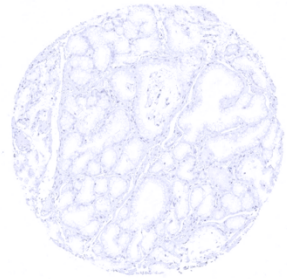
Breast



Bronchus, mucosa - In respiratory epithelium, cytokeratin 6 staining occurs in basal cells and sometimes also ciliated cells

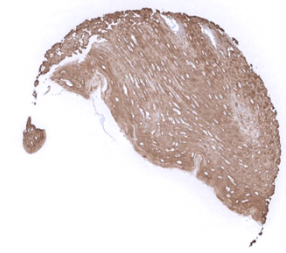


Colon descendens, mucosa

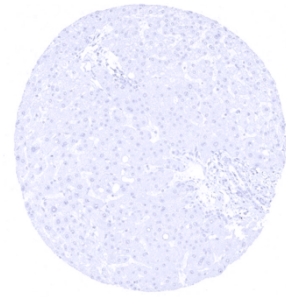


Duodenum, Brunner gland

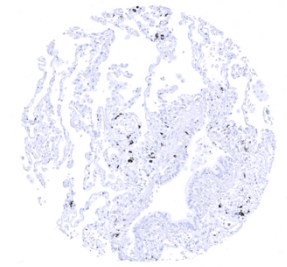
Ektocervix - Cervical squamous epithelium with strong cytokeratin 6 immunostaining of all cell layers except basal cells



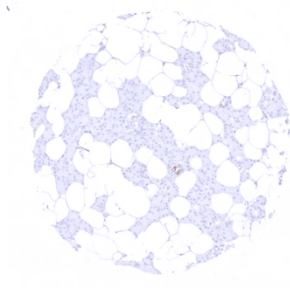
Esophagus, squamous epithelium



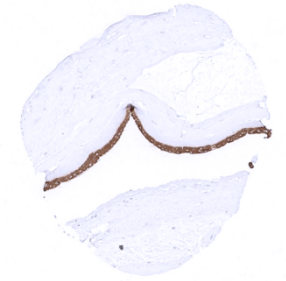
Liver



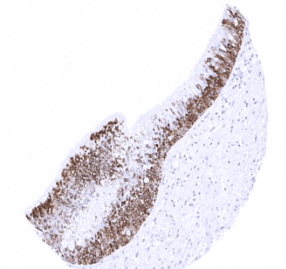
Lung



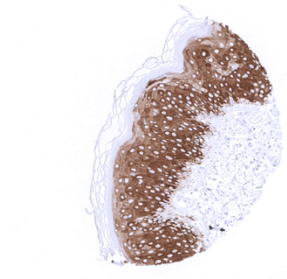
Parotid gland - Moderate cytokeratin 6 staining in small intercalated ducts of salivary glands



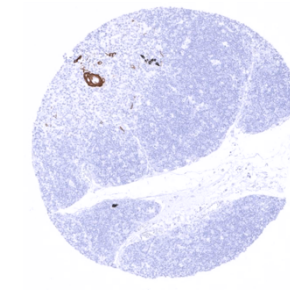
Placenta, mature, amnion and chorion



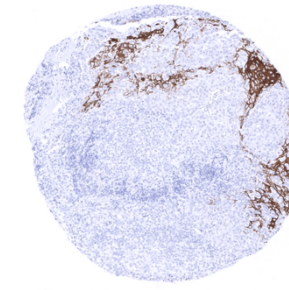
Sinus paranasales - In respiratory epithelium, cytokeratin 6 staining occurs in basal cells and sometimes also ciliated cells



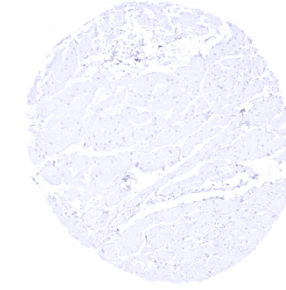
Skin - Squamous epithelium of skin with strong cytokeratin 6 immunostaining of most cell layers. Weaker staining in the basal cell layer



Thymus



Tonsil - Most squamous epithelial cells of the tonsil crypts exhibit cytokeratin 6 immunostaining



Urinary bladder, muscular wall