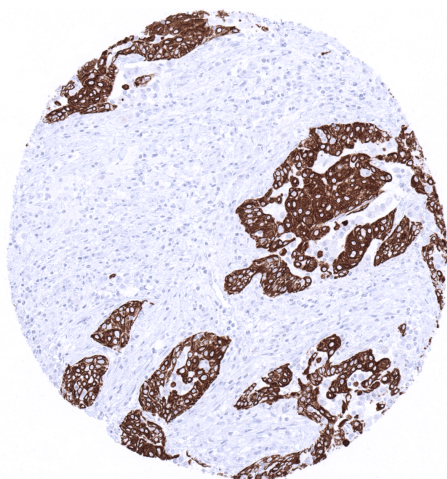


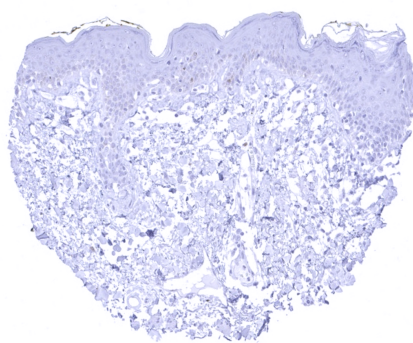
## Anti-Cytokeratin 13 Antibody MSVA-613M / Mouse monoclonal

Human SwissProt	P13646
Human Gene Symbol	KRT13
Synonyms	CK13; Cytokeratin-13; Keratin Type I Cytoskeletal 13; Keratin-13; KRT13; Type I Cytoskeletal 13; WSN2
Specificity	Cytokeratin 13
Immunogen	Recombinant human KRT13 protein
Isotype	Mouse / IgG1, kappa
Species Reactivity	Human
Localization	Cytoplasmic

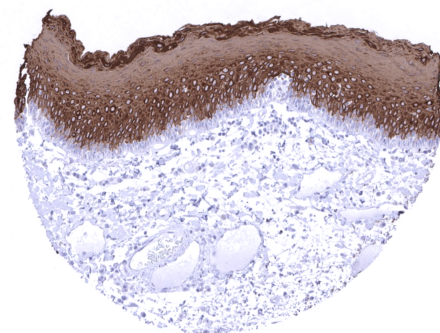
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Positive Control	In the tonsil, all supra-basal cells of the surface squamous epithelium and a fraction of squamous cells of the crypts should show strong KRT13 staining, while the basal cell layer remains KRT13 negative or shows only minimal staining.
Negative Control	In the tonsil, all lymphocytes and blood vessels must not show any KRT13 staining.



Strong cytokeratin 13 immunostaining in a squamous cell carcinoma of the oral cavity.



Absence of KRT13 staining in the keratinizing squamous epithelium of the skin.



Strong KRT13 staining in all suprabasal cell layers of the non-keratinizing squamous epithelium of the lip. The basal cell layer is strictly KRT13 negative.

### Biology

Cytokeratin 13 (CK13), also termed keratin 13 (KRT13) is a type I acidic high molecular weight keratin protein encoded by the KRT13 gene located at 17q21. It dimerizes with the type I keratin 4 and forms intermediate filaments that primarily shape the cytoskeleton of specific epithelial cells. In these cells, KRT13 is part of the cytoskeletal scaffold which contributes to the cell architecture and provides the cells with the ability to withstand mechanical stress. Mutations in CK10 have been linked to the autosomal dominant disorder "White Sponge Nevus". In normal tissues, strong KRT13 immunostaining is usually seen in all supra-basal cell layers of non-keratinizing squamous epithelia while KRT13 staining is weak or absent staining in corresponding basal cells. KRT13 staining is usually absent in the skin, hair follicles and sebaceous glands, but scattered KRT13 positive cells can – also in larger quantities occur in specific topographical areas such as for example in the anal skin. Very few scattered KRT13 positive individual cells or small cell groups can also occur in small ducts of salivary glands, endometrium, as well as basal cells of prostate, seminal vesicle, or respiratory epithelium. KRT13 is also expressed in Hassall's corpuscles and epithelial cells in the medulla - but not the cortex - of the thymus, squamous epithelium of the tonsil crypts, transitional epithelium of the anal canal, and urothelium (except umbrella cells). Among tumors, KRT13 immunostaining is almost exclusively seen in squamous cell carcinomas of various sites of origin. KRT13 expression can also be seen - at frequencies of <10% - in adenocarcinomas of the pancreas, stomach, ovary, lung, endometrium, breast, esophagus, and the prostate, as well as in non-seminoma germ cell tumors.

### Potential Research Applications

- The diagnostic utility of KRT13 expression analysis should be investigated in a large cohort of tumors from different entities.
- The diagnostic utility of increased KRT13 expression in the skin is not known.
- The diagnostic utility of decreased KRT13 expression in non-keratinizing squamous epithelium of ectocervix, esophagus, oral cavity and lip is not known.
- The prognostic role of KRT13 expression in squamous cell carcinoma is unknown.

### Protocol Suggestions

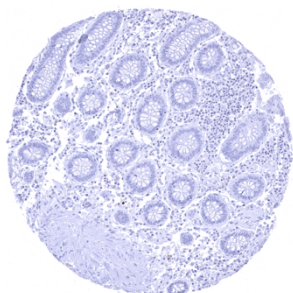
**Dilution 1:150 ; pH 7,8 is optimal.** Freshly cut sections should be used (less than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

### Limitations

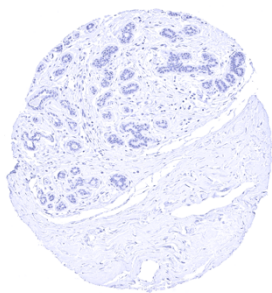
This antibody is available for **research use only** and is not approved for use in diagnostics. Not for resale without express authorization.

### Warranty

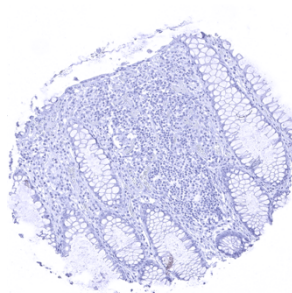
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



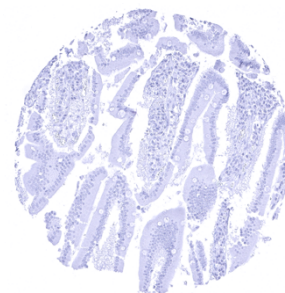
Appendix, mucosa



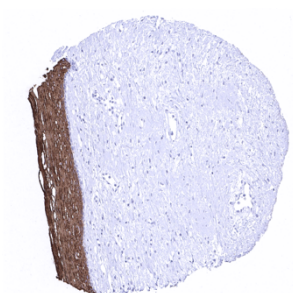
Breast



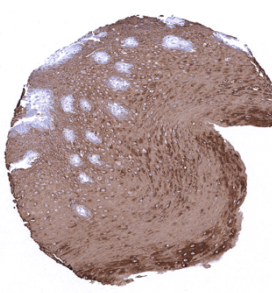
Colon descendens, mucosa



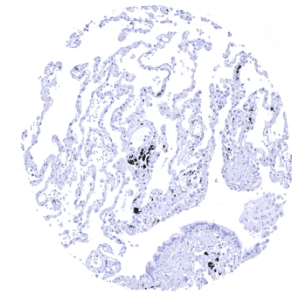
Duodenum, mucosa



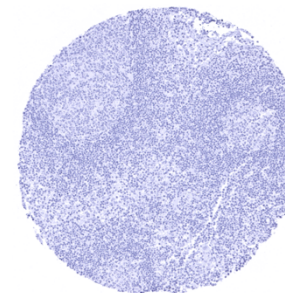
Ektocervix



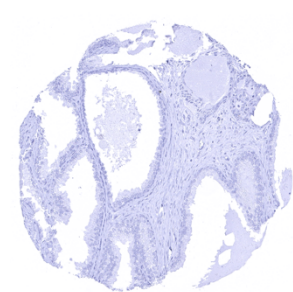
Esophagus, squamous epithelium



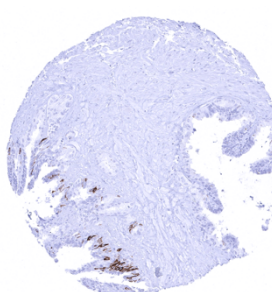
Lung



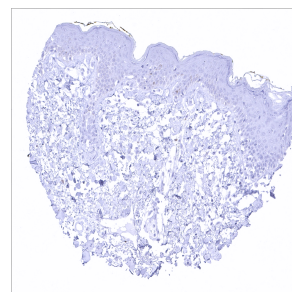
Lymph node



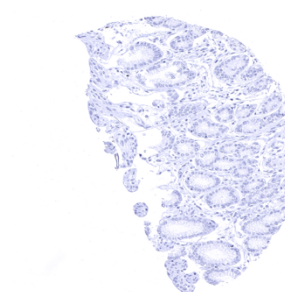
Prostate



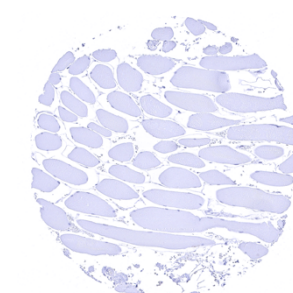
Seminal vesicle - Few scattered CK13 positive cells or cell groups occur in basal cells of seminal vesicle epithelium



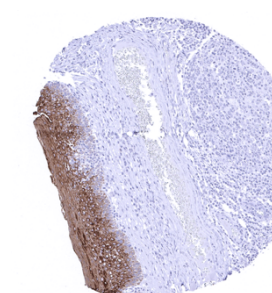
Skin - CK13 staining is usually absent in the skin



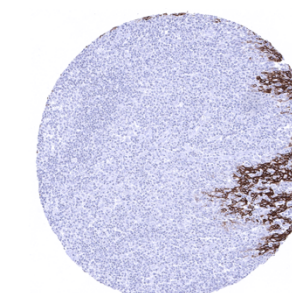
Stomach, antrum



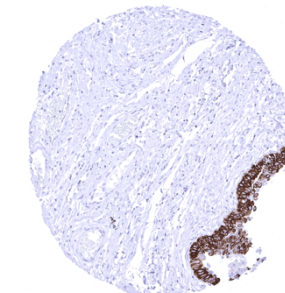
Striated muscle



Tonsil, surface epithelium - CK13 immunostaining is strong in all supra-basal cell layers of non-keratinizing squamous epithelium but weak or absent staining in corresponding basal cells



Tonsil



Urinary bladder, urothelium - CK13 is positive in urothelium (except umbrella cells)