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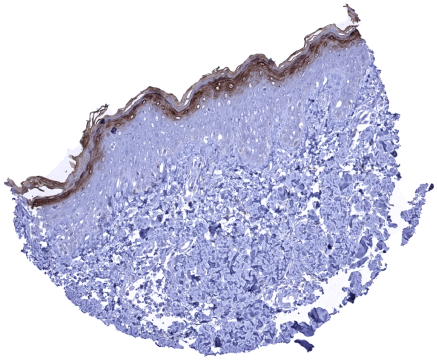
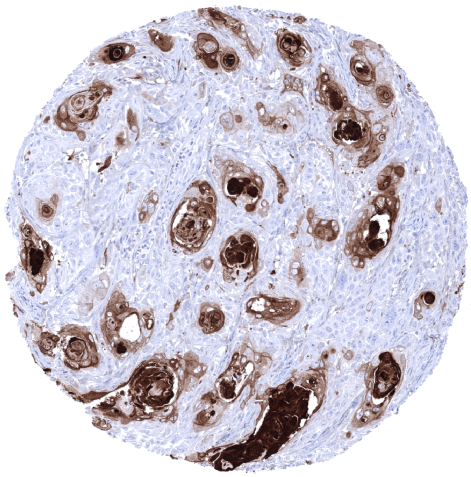
Anti- KLK7 Antibody
MSVA-707M / Mouse monoclonal

Human SwissProt	P49862
Human Gene Symbol	KLK7
Synonyms	Kallikrein related peptidase 7 (HGNC Symbol), PRSS6, SCCE
Specificity	KLK7
Immunogen	Recombinant human KLK7 protein
Isotype	Mouse / IgG
Species Reactivity	Human
Localization	Intracelullar Secreted

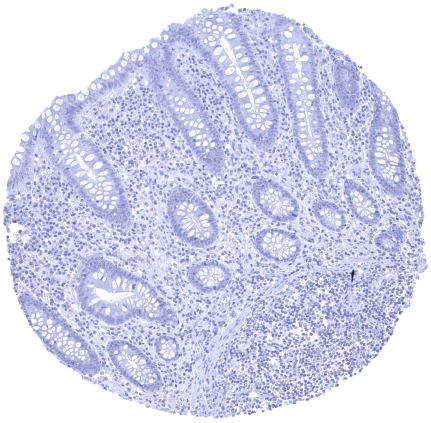
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA
Positive Control	Skin: A strong KLK7 staining should be seen in the stratum granulosum and possibly also in the keratinizing cell layers.
Negative Control	Colon: KLK7 immunostaining should be absent in all cells of the colon mucosa.



A strong KLK7 staining in the stratum granulosum and the keratinizing superficial layer of the skin



Squamous cell carcinoma showing strong KLK7 staining in areas of keratinization



KLK7 staining is absent in all cells of the colon mucosa

Biology

Kallikrein-related peptidase 7 (KLK7) is a 27,5 kDa chymotrypsin-like serine protease which is coded by the KLK7 gene located on chromosome 19q13. KLK7 plays a pivotal role in maintaining skin homeostasis. It is secreted into the stratum granulosum layer of the epidermis as an inactive enzyme requiring proteolytic cleavage of the N-terminal for becoming activated. Activated KLK7 triggers the proteolysis of corneodesmosomes. This enables the desquamation of corneocytes from the outer layer of the epidermis. Dysregulation of KLK7 has been associated with several skin disorders characterized by excessively dry, scaly and inflamed skin such as atopic dermatitis, psoriasis, and the Netherton syndrome. In normal tissues, KLK7 immunostaining is predominantly seen in squamous epithelia of all kinds. KLK7 staining preferably occurs in a zone between the middle and the top 20% of the squamous epithelium - an area that contains the granular layer in keratinizing squamous epithelium. Among tumors, KLK7 expression has been reported in squamous cell carcinomas of various organs of origin, ovarian cancer and in other tumor entities as well. In several tumor entities, overexpression of KLK7 protein has been found to be linked with metastasis and unfavorable prognosis. It has been suggested that KLK7 overexpression represents a possible route for metastasis due to excessive cleavage of cell junction proteins.

Potential Research Applications

-Immunohistochemical studies on KLK7 expression have been limited so far. The prognostic and diagnostic role of KLK7 expression analysis needs to be further evaluated.

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.

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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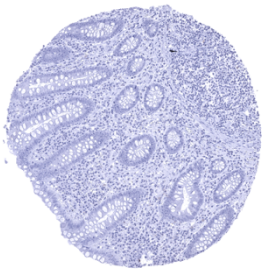
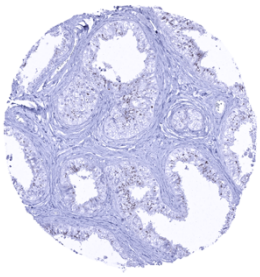
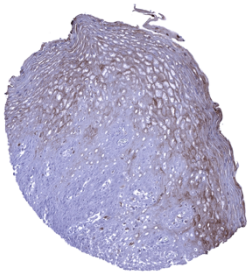


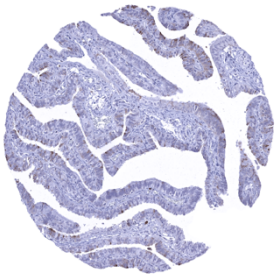
Appendix, mucosa



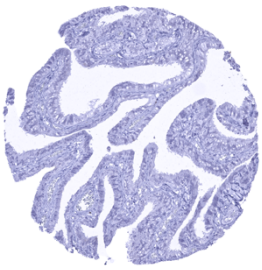
Epididymis - Granular cytoplasmic staining in this sample reflects pigment and is unrelated to KLK7



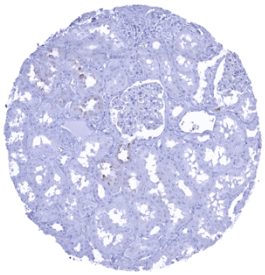
Esophagus, squamous epithelium - Weak to moderate KLK7 immunostaining in the superficial half of the squamous epithelium



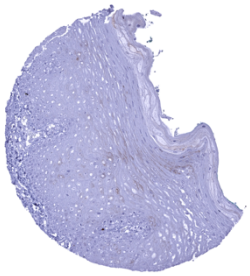
Fallopian tube, mucosa - A predominantly apical cytoplasmic KLK7 staining in a small fraction of epithelial cells may represent an antibody-specific cross-reactivity



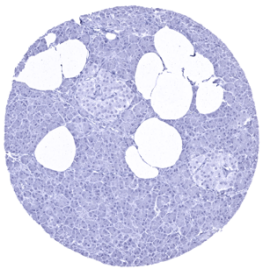
Fallopian tube, mucosa - KLK7 staining of epithelial cells is not seen in this sample



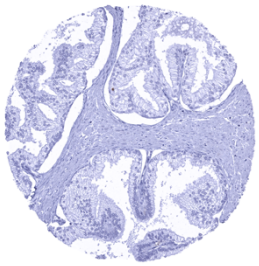
Kidney, cortex - Focal KLK7 staining in few tubuli of this kidney sample may represent an antibody-specific cross-reactivity



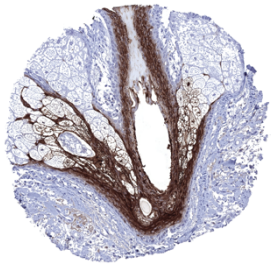
Lip, oral mucosa - KLK7 immunostaining is almost absent in this squamous epithelium sample



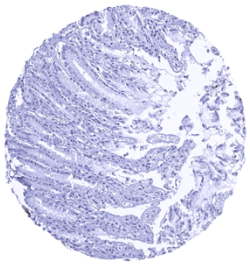
Pancreas



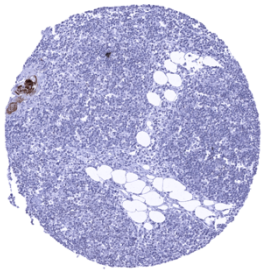
Prostate



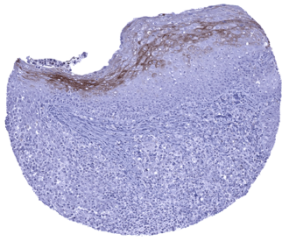
Skin (hair follicles and sebaceous glands) - A strong KLK7 immunostaining is seen in the cortex of hair follicles and the luminal area of sebaceous glands



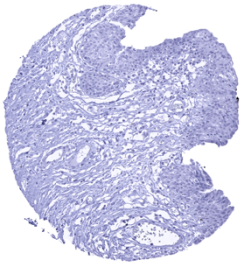
Stomach, antrum



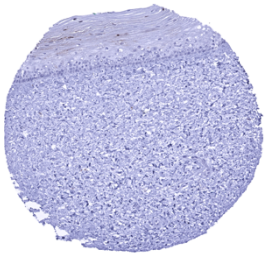
Thymus - Strong KLK7 immunostaining in keratinizing squamous epithelial cells of a corpuscle of Hassall's



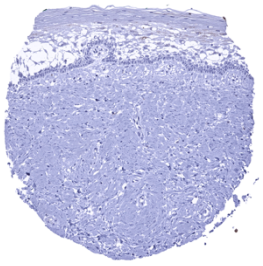
Tonsil, surface epithelium - Moderate KLK7 staining in the top third of the squamous epithelium, a layer that corresponds to the stratum granulosum



Urinary bladder, urothelium



Uterus, ectocervix - KLK7 immunostaining is almost absent in this squamous epithelium sample



Uterus, ectocervix - KLK7 staining is undetectable in this squamous epithelium