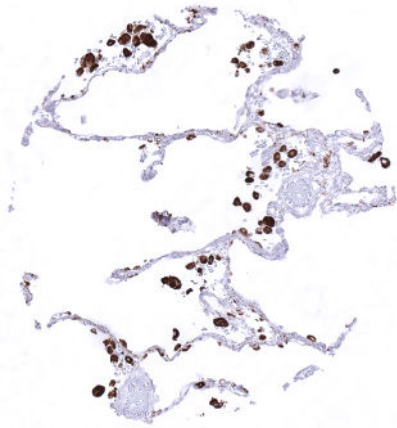


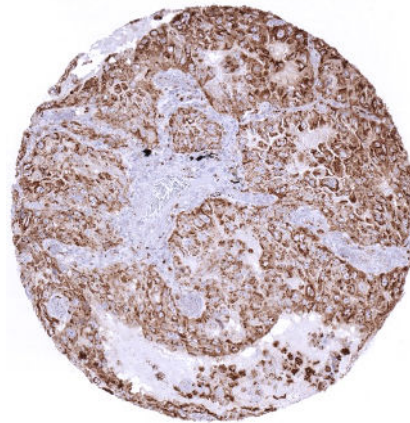
Anti- Napsin A Antibody MSVA-112R / Recombinant Rabbit monoclonal

Human SwissProt	O96009
Human Gene Symbol	NAPSA
Synonyms	ASP4, Aspartyl protease 4, KAP, Kidney derived aspartic protease like protein (Kdap), NAP1, NAPA, Napsa, napsin A aspartic peptidase, Pronapsin A, SNAPA
Specificity	Napsin A
Immunogen	Recombinant human Napsin A fragment
Isotype	Rabbit / IgG
Species Reactivity	Human
Localization	Cytoplasmic

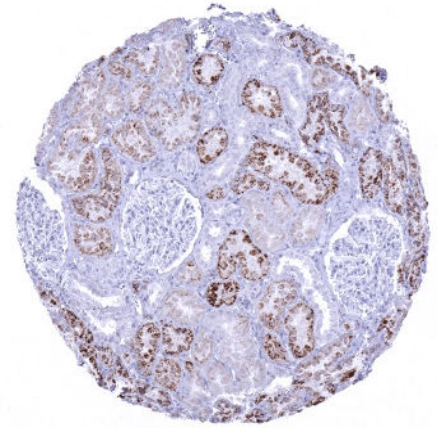
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Kidney tissue (an at least moderate granular cytoplasmic staining should be seen in virtually all cells of the proximal tubulus)
Negative Control	Colon mucosa (Negative staining reaction of normal columnar epithelial cells and macrophages in lamina propria in the colon)



Normal lung showing strong Napsin A immunostaining of pneumocytes and alveolar macrophages.



Adenocarcinoma of the lung with strong expression of Napsin A.



Moderate Napsin A immunostaining in proximal tubuli of the kidney.

Biology

Novel aspartic proteinase of the pepsin family A (Napsin A) is a proteinase, that cleaves proteins and peptides to produce mature or active forms of these molecules (2, 3). Napsin A immunostaining is only seen in a few organs. In the lung, type II pneumocytes and alveolar macrophages are strongly Napsin A positive. In the kidney, proximal tubuli are more strongly positive than distal tubuli and some collecting ducts can also stain positive. In the epididymis, a moderate Napsin A positivity is seen at the apical pole of the glandular cells in the cauda but not the corpus. Occasional staining has also been observed in endometrial glands of the pregnant uterus. In the lung, Napsin A is involved in the maturation of prosurfactant protein B in type II pneumocytes (8), potentially in phagocytosis by macrophages (3), and the lysosomal protein catabolism in renal cells (9). Napsin A expression is limited to few cancer types. Napsin A immunohistochemistry is therefore highly useful for distinction of different tumor types in the lung and in the ovary as well as for assessing tumors of unknown origin. The most commonly Napsin A positive cancer types include: adenocarcinoma of the lung (>80% positive), clear cell adenocarcinoma of the ovary (>70%), papillary renal cell carcinoma (40-50%), and clear cell renal cell carcinoma (10-40%).

Potential Research Applications

- A comprehensive study analyzing Napsin-A expression in various different tumor entities would be helpful to assess the diagnostic significance of Napsin-A IHC.
- The clinical role of Napsin A expression levels in lung or renal cancers is unknown.

Protocol Suggestions

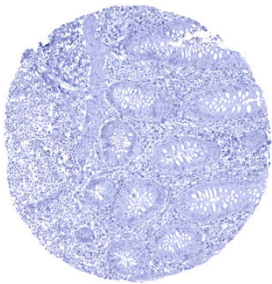
Dilution: 1:150 ; pH9 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

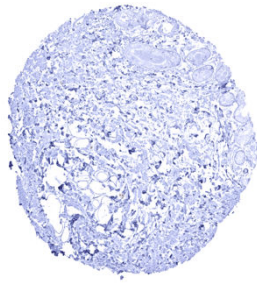
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

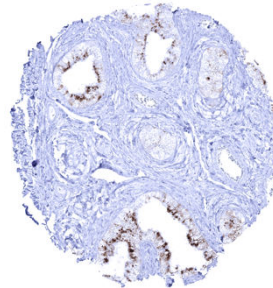
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



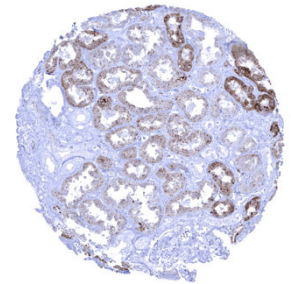
Appendix, mucosa



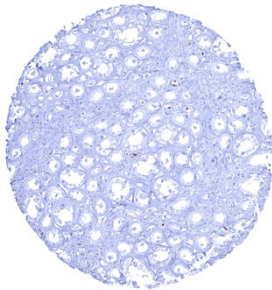
Breast



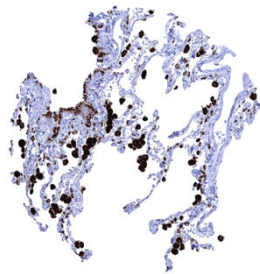
Epididymis - A moderate Napsin A positivity is seen at the apical pole of the glandular cells in the cauda but not the corpus of the epididymis



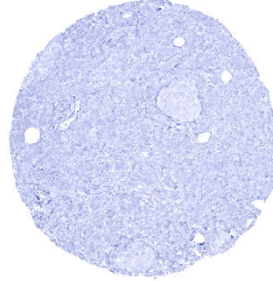
Kidney, cortex - Proximal tubuli are more strongly positive than distal tubuli and some collecting ducts can also stain positive



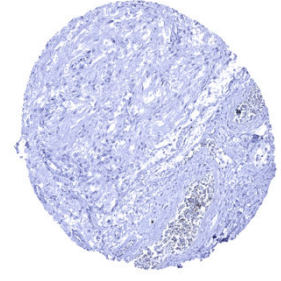
Kidney, medulla



Lung - Type II pneumocytes and alveolar macrophages are strongly Napsin A positive



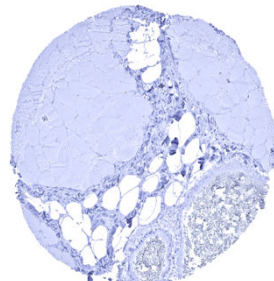
Pancreas



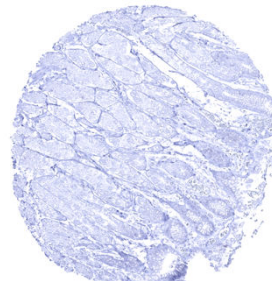
Pituitary gland, posterior lobe



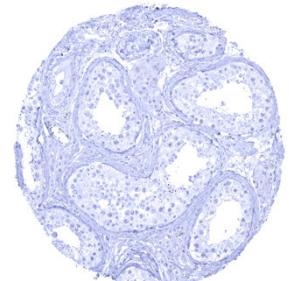
Prostate



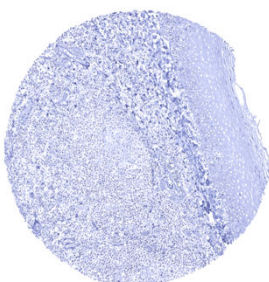
Skeletal muscle



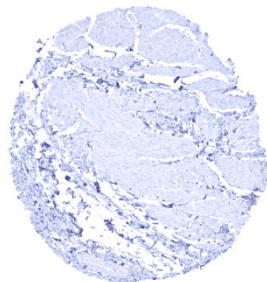
Stomach, antrum



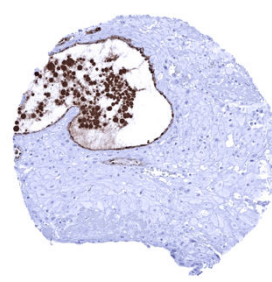
Testis



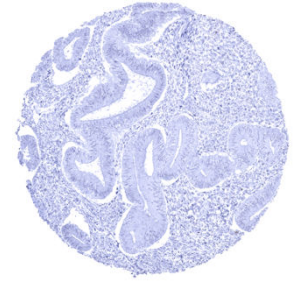
Tonsil, surface epithelium



Urinary bladder, muscular wall



Uterus, endometrium (pregnancy) - A strong napsin A immunostaining is seen in an endometrium gland



Uterus, endometrium (proliferation)