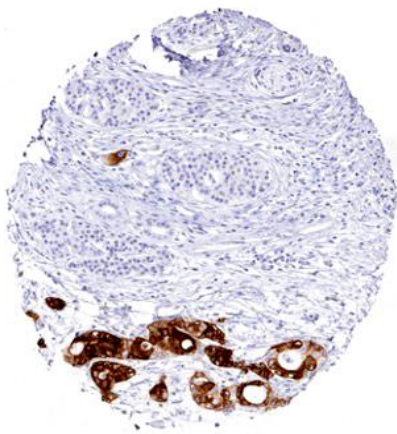


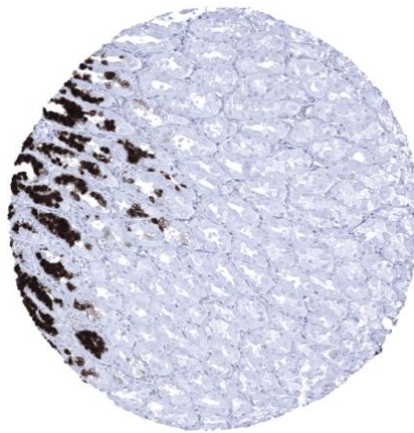
## Anti-MUC5AC Antibody MSVA-109M / Mouse monoclonal

Human SwissProt	P98088
Human Gene Symbol	MUC5AC
Synonyms	Apomucin Major Airway Glycoprotein, Mucin 5 subtype AC tracheobronchial, Mucin 5 subtypes A and C, Mucin 5AC oligomeric mucus/gel forming, Tracheobronchial Mucin (TBM)
Specificity	MUC5AC
Immunogen	Recombinant peptide
Isotype	Mouse / IgG1, kappa
Species Reactivity	Human

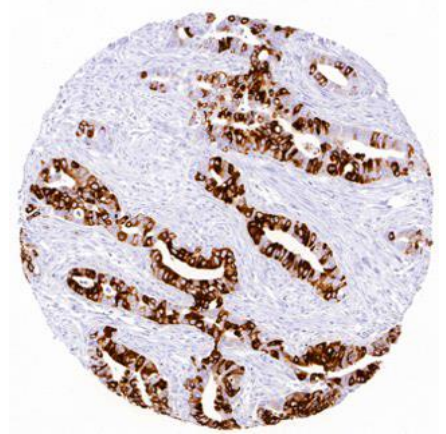
Localization	P98088
Storage & Stability	Cytoplasmic
Supplied As	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Positive Control	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Negative Control	Gastric mucosa



**Strong MUC5AC expression in a pancreatic cancer. Normal tissue including islets of Langerhans stains negative.**



**Strong MUC5AC expression in stomach surface epithelium (suggested positive control tissue).**



**Strong MUC5AC expression (mosaic pattern) in pancreatic cancer.**

### Biology

Mucin 5AC (MUC5AC) belongs to the subset of 5 secreted gel-forming mucins (MUC2, -5B, -5AC, -6, and -19) which are encoded by a gene cluster located at chromosome 11p15. MUC5AC is a glycoprotein with multiple cysteine-rich domains in both N- and C-terminal regions that are responsible for the formation of polymers, a critical feature for gel forming (17850213). The mucin layer protects the epithelial surfaces from chemical and mechanical damage as well as microbial pathogens, which are bound and subsequently removed by the mucociliary system.

In normal tissues, MUC5AC immunostaining is regularly found in 100% of the columnar cells of the stomach surface epithelium, a small fraction of surface epithelial cells of the duodenum, small intestine, appendix, and colon, columnar surface cells of the transitional epithelium of the anal canal and of the gallbladder epithelium as well as in goblet cells of the bronchial system and the paranasal sinuses. MUC5AC staining was seen in normal appearing endocervical glands from some donors.

MUC5AC is aberrantly expressed in a variety of cancers and their precursor lesions.

### Potential Research Applications

-A comprehensive study analyzing MUC5AC expression in various different tumor entities would be helpful to assess the diagnostic significance of MUC5AC IHC.

-The prognostic relevance of MUC5AC expression and of different immunostaining patterns (diffuse vs "mosaic") should be evaluated.

-The use of serum MUC5AC measurement as a putative instrument for monitoring response to therapy and early detection of recurrence in case of MUC5AC positive primary tumors should be investigated.

### Protocol Suggestions

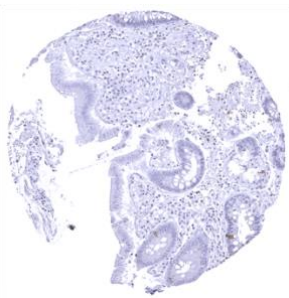
**Dilution: 1:150 ; pH9,0 is optimal** (only weak staining is obtained at pH6,0)  
Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

### Limitations

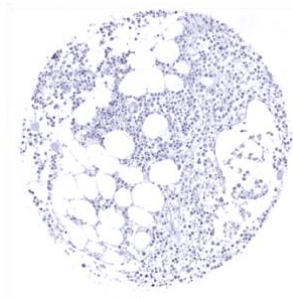
This antibody is available for research use only and is not approved for use in diagnostics.

### Warranty

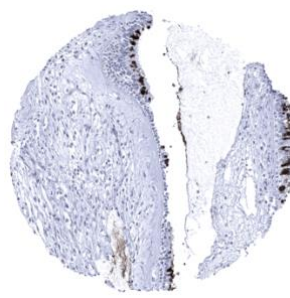
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product. Changes of the original product formulation or composition for commercial use are expressly prohibited.



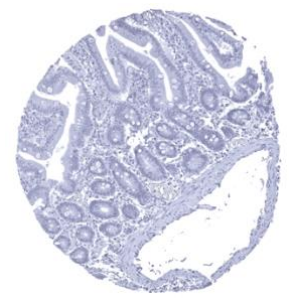
Appendix, mucosa



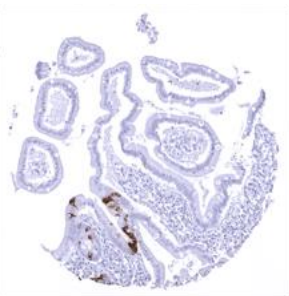
Bone marrow



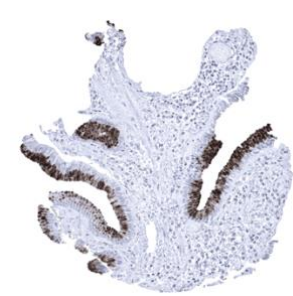
Bronchus, mucosa



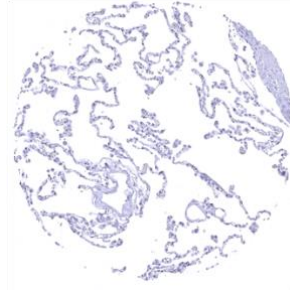
Duodenum, mucosa



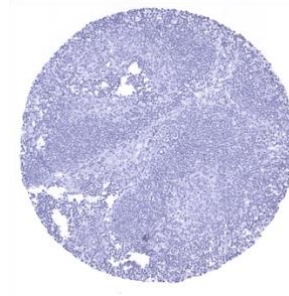
Epididymis



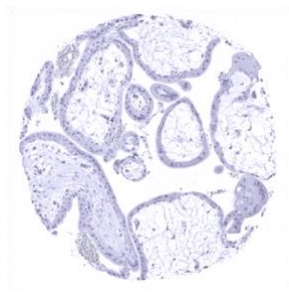
Gallbladder, epithelium



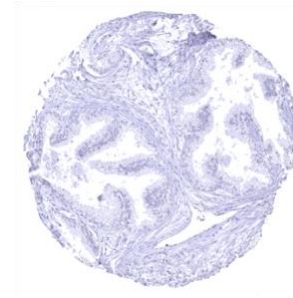
Lung



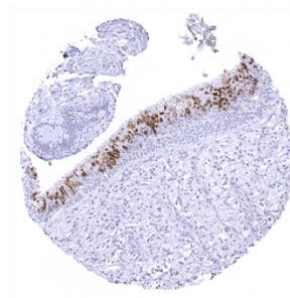
Lymph node



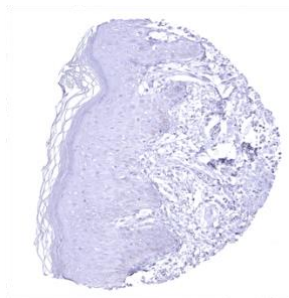
Placenta, early



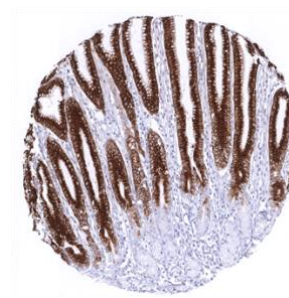
Prostate



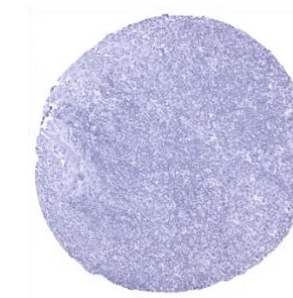
Sinus paranasales, mucosa



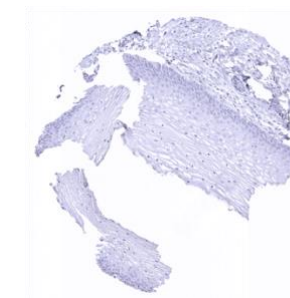
Skin



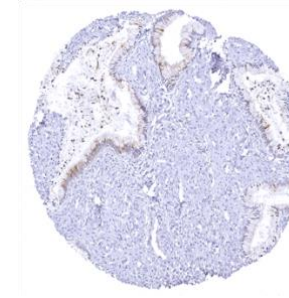
Stomach, antrum



Tonsil, deep



Uterus, ectocervix



Uterus, endocervix - MUC5AC immunostaining is occasionally seen at varying intensity in few or several glands. Not all samples show MUC5AC positivity.