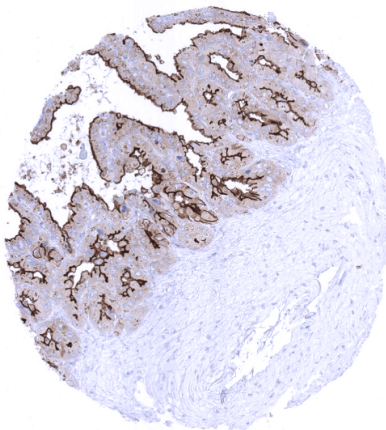


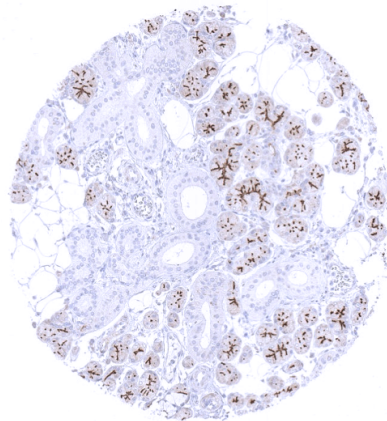
## Anti-Dog1 Antibody MSVA-201M / Mouse monoclonal

|                    |  |
|--------------------|--|
| Human SwissProt    | Q5XX6  |
| Human Gene Symbol  | TMEM16A  |
| Synonyms           | Anoctamin 1; Calcium Activated Chloride Channel; Discovered On Gastrointestinal Stromal Tumors Protein 1; TAOS2; ORAOV2; TMEM16A |
| Specificity        | Dog1   |
| Immunogen          | Synthetic peptide from human Dog1 protein  |
| Isotype            | Mouse / IgG1   |
| Species Reactivity | Human  |
| Localization       | Cell Surface and Cytoplasm   |

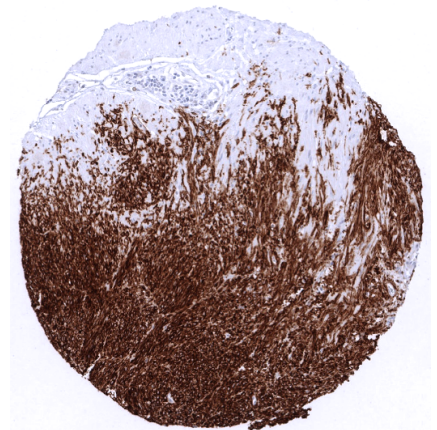
|                     |   |
|---------------------|---|
| Storage & Stability | Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.  |
| Supplied As         | 200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.  |
| Positive Control    | tonsil/appendix: Appendix: an at least moderate, predominantly membranous staining should be seen in Cajal cells in the muscular wall and a weak membranous staining should be seen in columnar epithelial cells in the basal part of the crypts of the appendix. |
| Negative Control    | Appendix: Staining should be absent in the majority of cells in the muscular wall and in epithelial cells located at the surface.   |



Strong Dog1 immunostaining at the apical membrane of seminal vesicle epithelium.



Distinct Dog1 immunostaining at the apical membrane of secreting cells in a parotid gland. Columnar ductal cells are Dog1 negative.



Tumor periphery of a GIST showing intensive Dog1 staining in all tumor cells.

### Biology

DOG1 (Discovered on GIST1), also known as Transmembrane member 16A (TMEM16A) or Anoctamin-1 (ANO1) is a voltage-gated calcium-activated chloride and bicarbonate channel. DOG1 is highly expressed in the gastrointestinal interstitial cells of Cajal, where it plays an important role in epithelial chloride secretion mediating intestinal motility. High levels of DOG1 expression are a diagnostic hallmark of gastrointestinal stromal tumors, a tumor derived from interstitial cells of Cajal. However, DOG1 expression can also occur in various other cancer types such as for example in salivary gland tumors, squamous cell carcinomas of the head and neck, the genitourinary tract and the esophagus, urothelial carcinoma, as well as adenocarcinomas of the pancreas, stomach and the colon. In normal tissues, a predominantly membranous DOG1 immunostaining occurs in gastrointestinal interstitial cells of Cajal (+++), stomach epithelial cells, mainly in the isthmus/neck region but also surface epithelial cells (+++), goblet cells in the base of crypts of colonic mucosa (+), hepatocytes (+), myoepithelial cells in the breast cells (++), amnion cells of the placenta (+), as well as in apical membranes of epithelial cells of seminal vesicle (+++), secreting cells in salivary glands (+++), gallbladder surface epithelium (++), cauda (+++) and caput (+++) of epithelial cells of the epididymis, fallopian tube (++), endometrium (++++), not in all samples), endocervical glands (+, not in all samples). In some samples, DOG1 expression is also seen in endometrial stroma cells.

### Potential Research Applications

-The diagnostic utility of DOG1 IHC should be investigated in a large cohort of tumors from different entities.

-The clinical significance of DOG1 expression levels in GIST deserves further investigation.

-The clinical significance of DOG1 expression in non-GIST tumors is unknown.

-The cause of DOG1 overexpression is unknown. As DOG1 lies in a frequently amplified region of the genome (11q13), amplification might play a role.

### 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).

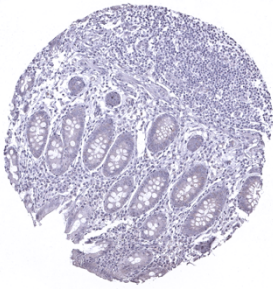
### Limitations

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

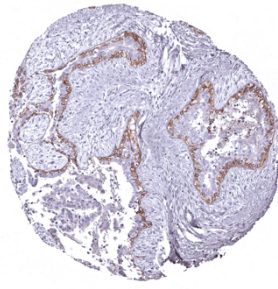
Not for resale without express authorization.

### Warranty

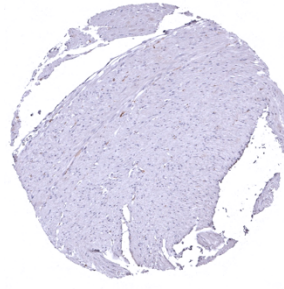
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



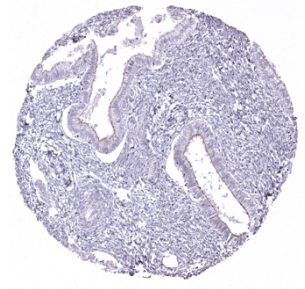
Appendix, mucosa



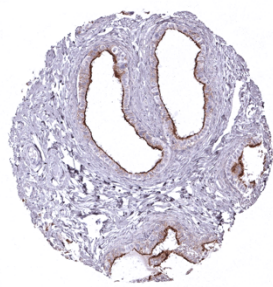
Breast



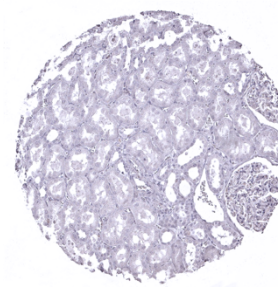
Colon descendens, muscular wall



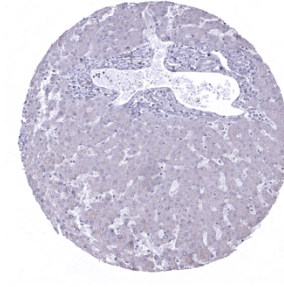
Endometrium, proliferation



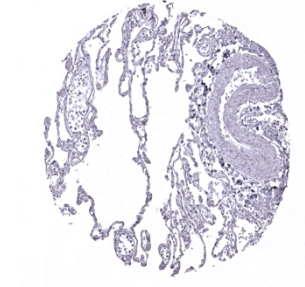
Epididymis



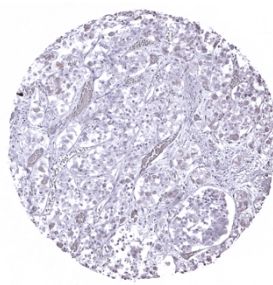
Kidney, cortex



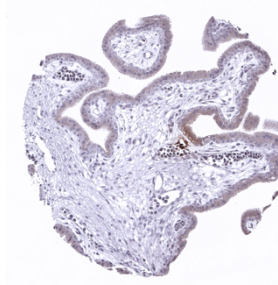
Liver



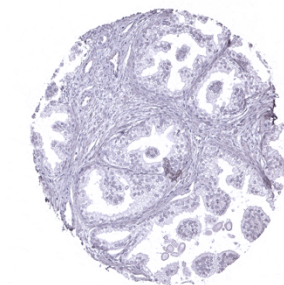
Lung



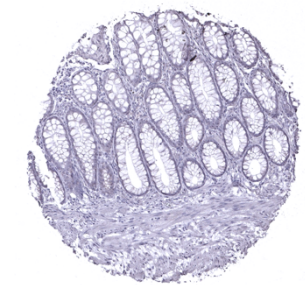
Pituitary, anterior lobe



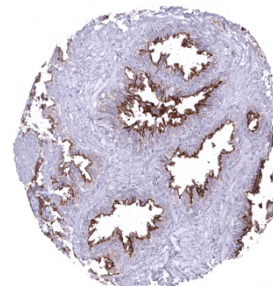
Placenta, early



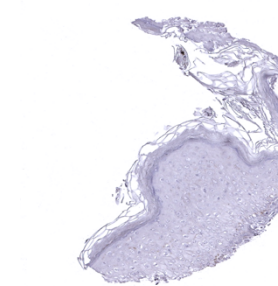
Prostate



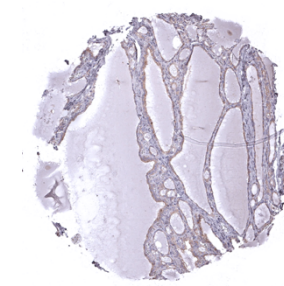
Rectum, mucosa



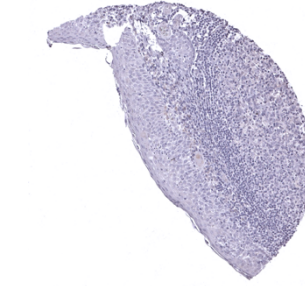
Seminal vesicle



Skin



Thyroid gland



Tonsil, surface epithelium