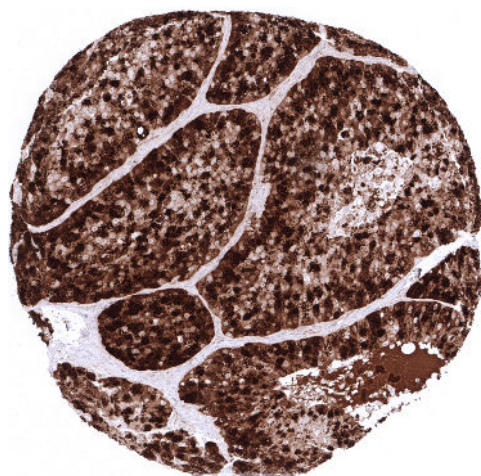


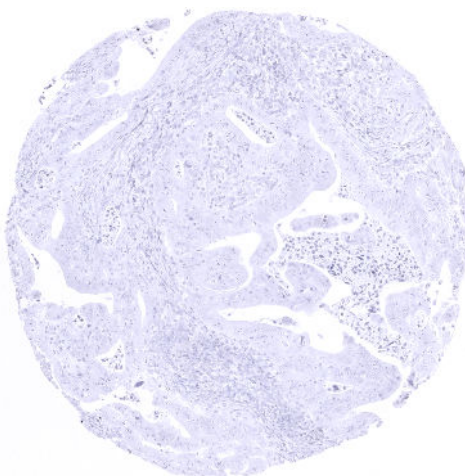
## Anti-CPA1 Antibody MSVA-601M / Mouse monoclonal

Human SwissProt	P15085
Human Gene Symbol	CPA1
Synonyms	Carboxypeptidase A1 (pancreatic); CPA1; Pancreatic Carboxypeptidase A1; Procarboxypeptidase A1 pancreatic
Specificity	CPA1
Immunogen	Recombinant full-length human CPA1 protein
Isotype	Mouse / IgG1,
Species Reactivity	P15085

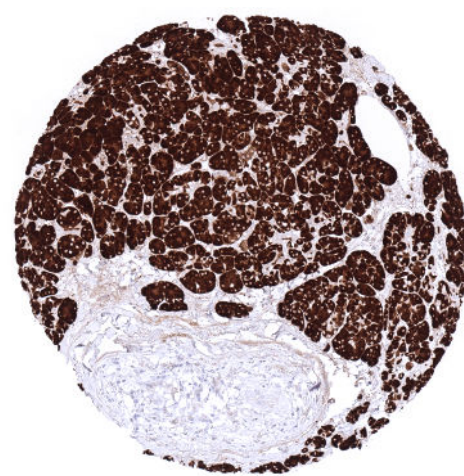
Localization	Secreted
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with < 1% BSA and < 0,1% azide. Also available without BSA.
Positive Control	pancreatic tissue should show strong staining of acinar cells.
Negative Control	kidney or colon: CPA1 immunostaining should not be seen.



Normal pancreas with strong CPA1 positivity in acinar cells.



Ductal adenocarcinoma of the pancreas not showing any CPA1 immunostaining



Acinus cell carcinoma of the pancreas with strong CPA1 immunostaining in virtually all cells.

### Biology

Carboxypeptidase A1 (CPA1) is a zinc metalloprotease coded by the CPA1 gene located at 7q32.2. It is a 34,6kDa protein which is produced in the pancreas. It is involved in zymogen inhibition and was shown to preferentially cleave C-terminal branched-chain and aromatic amino acids from dietary proteins. Mutations of CPA1 gene have been linked to chronic pancreatitis. Elevated CPA1 serum protein levels have been described in patients with pancreatic cancer. CPA1 is strongly expressed by acinar cells of the pancreas. It is not expressed by islet cells, intercalated ducts and excretory ducts of the pancreas, although these cells can show some weak staining due to tissue contamination derived from high levels of CPA1 in adjacent acinar cells. CPA1 immunostaining is not seen in any other human cell types and tissues. In tumors, CPA1 immunostaining occurs in >80% of pancreatic acinar cell carcinoma. This includes tumors with mixed differentiation such as mixed acinar-neuroendocrine carcinoma (MANEC) and mixed acinar-ductal carcinoma (MADC). CPA1 is highly specific for pancreatic acinar cell carcinoma. CPA1 immunostaining is virtually absent in pancreatic ductal adenocarcinoma, neuroendocrine tumors or other tumor types.

### Potential Research Applications

-CPA1 expression has been shown to represent a specific feature of pancreatic acinar cell carcinoma. Further studies are needed to validate this findings.

-The prognostic relevance of different CPA1 expression levels should be investigated in pancreatic acinar cell carcinoma.  
-Can elevated CPA1 serum levels already suggest acinar cell carcinoma

### Protocol Suggestions

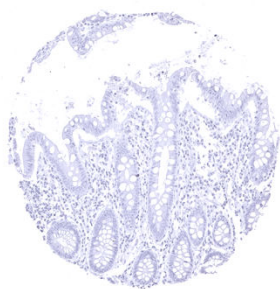
**Dilution: 1:150. pH 7,8 is optimal.** Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

### Limitations

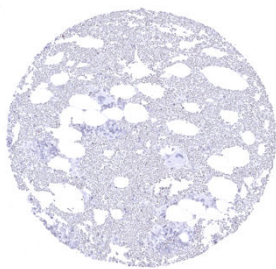
This antibody is available for **research use only** and is not approved for use in diagnostics.  
Not for resale without express authorization.

### Warranty

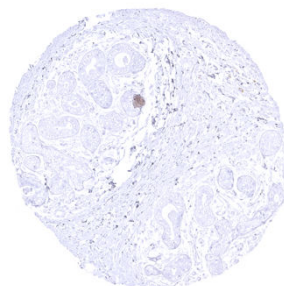
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



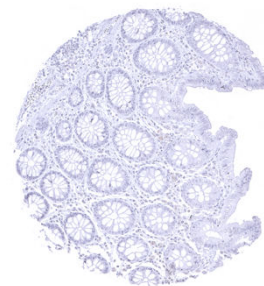
Appendix, mucosa



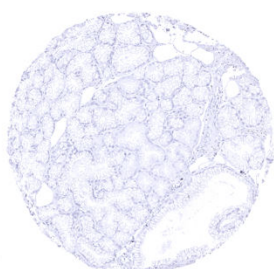
Bone marrow



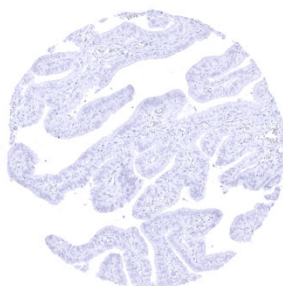
Breast



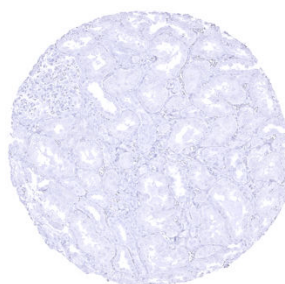
Colon descendens, mucosa



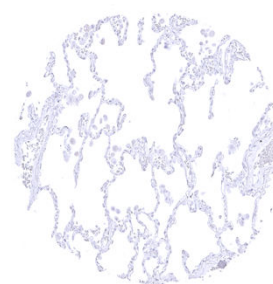
Duodenum, Brunner gland



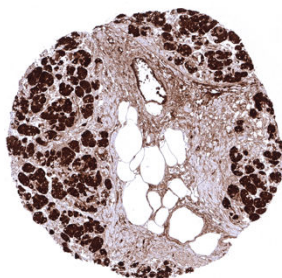
Fallopian tube, mucosa



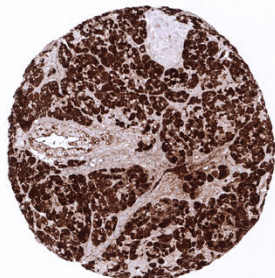
Kidney, cortex



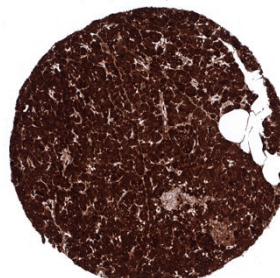
Lung



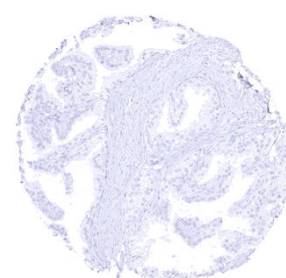
Pancreas - Strong CPA1 staining in pancreatic acinar cells. Because of the high level of expression, adjacent tissues (stroma) also exhibit some staining due to a contamination effect



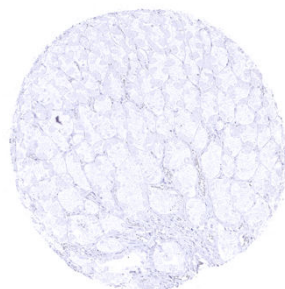
Pancreas - Strong CPA1 staining in pancreatic acinar cells. Because of the high level of expression, adjacent tissues (stroma; excretory ducts) also exhibit some staining due to a contamination effect



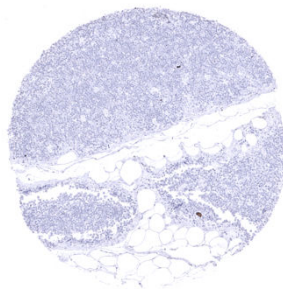
Pancreas - Strong CPA1 immunostaining in pancreatic acinar cells



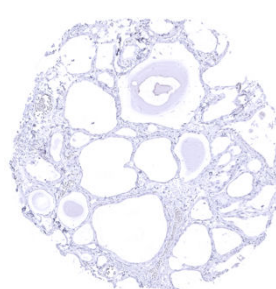
Prostate



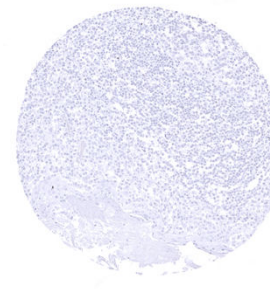
Stomach, corpus



Thymus



Thyroid gland



Tonsil