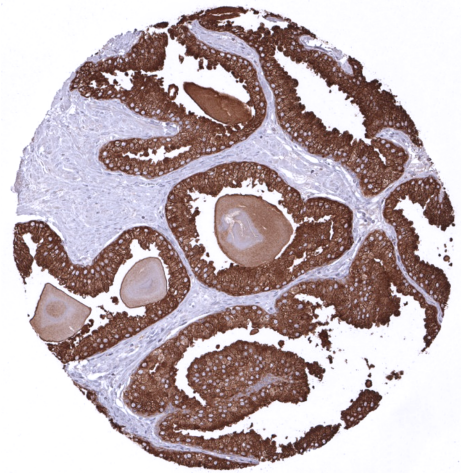
MS Validated Antibodies

MS Validated Antibodies GmbH
Bergstedter Chaussee 62a
22395 Hamburg, Germany
Tel: +49 (0) 40 89 72 55 81
E-Mail:info@ms-validatedantibodies.com
Website: ms-validatedantibodies.com

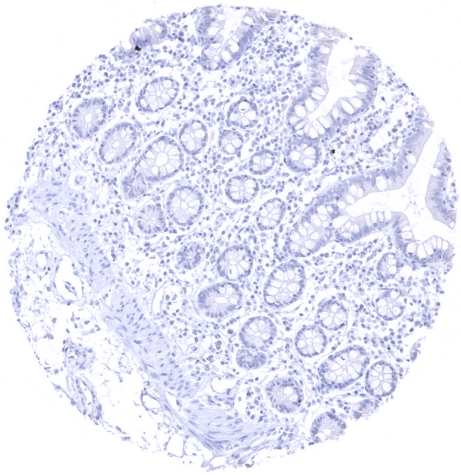
Anti- PSAP Antibody
MSVA-452 / Recombinant Mouse monoclonal

Human SwissProt	P15309
Human Gene Symbol	ACPP
Synonyms	5'-nucleotidase (5'-NT); Acid phosphatase prostate; ACP3; Ecto-5'-nucleotidase; Prostatic acid phosphatase (PAP); Prostatic acid phosphatase; Thiamine monophosphatase (TMPase)
Specificity	PSAP
Immunogen	Recombinant human ACPP protein
Isotype	Mouse / IgG1, kappa
Species Reactivity	Human
Localization	Cytoplasmic

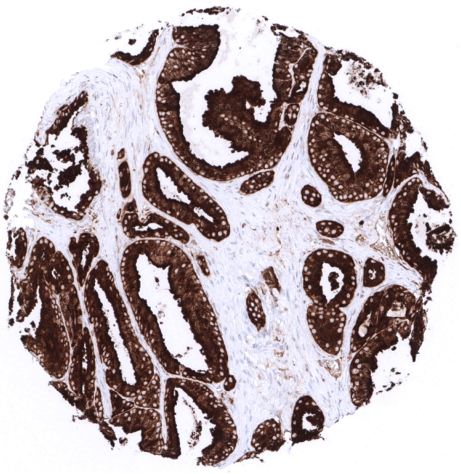
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA
Positive Control	A strong PSAP immunostaining should, be seen in all glandular cells of the prostate.
Negative Control	In the appendix, all epithelial and non-epithelial structures should not show any PSAP immunostaining.



Normal prostatic tissue with strong PSAP positivity in prostatic glands.



Normal colon mucosa with complete lack of PSAP immunostaining



Strong PSAP expression of all cells of a prostatic adenocarcinoma.

Biology

Prostatic specific acid phosphatase (PSAP), also termed Prostatic acid phosphatase (PAP) is coded by a gene at 3q21-23. It is an enzyme that is produced in prostate epithelial cells and has the capacity to dephosphorylate macromolecules in acidic condition (pH 4-6). Its substrates are not fully known. It is suspected, PSAP's physiological function may be associated with the liquefaction process of semen. Alternative splicing generates two types of PAP transcripts, a transmembrane PAP consisting of 11 exons, and cellular and a secretory PAPs containing 10. The molecular mechanisms controling PSAP protein expression are not fully understood. Factors involved in the regulation of PSAP expression include androgen, androgen receptor, NF-κB, TNF-a and IL-1. In normal tissues, PSAP is found in prostate glandular cells and at a lower level in sebaceous glands. Among cancer, PSAP is expressed in the vast majority of adenocarcinomas of the prostate. The prevalence and intensity of PSAP expression was described to decrease slightly with increasing Gleason score. PSAP immunostaining is also seen in tumors derived from the Skene's glands, and in a fraction of salivary gland tumors. PSAP positivity was also described to potentially occur in nephrogenic adenoma, as well as male and female breast cancers.

Potential Research Applications

-The diagnostic utility of PSAP expression analysis should be investigated in a large cohort of tumors from different entities.
The prognostic role of PSAP expression levels in tissue and serum are not entirely clear.

Protocol Suggestions

Dilution: 1:150 ; pH9 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

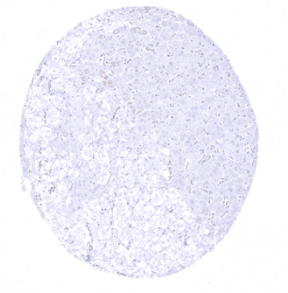
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

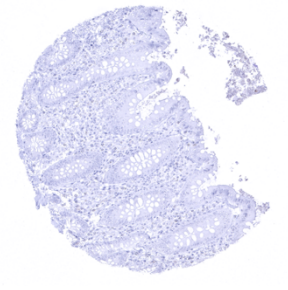
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.

MS
Validated Antibodies

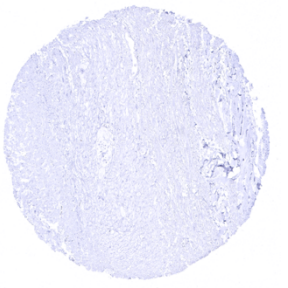
MS Validated Antibodies GmbH
Bergstedter Chaussee 62a
22395 Hamburg, Germany
Tel: +49 (0) 40 89 72 55 81
E-Mail:info@ms-validatedantibodies.com
Website: ms-validatedantibodies.com



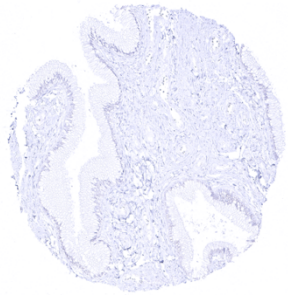
Adrenal gland



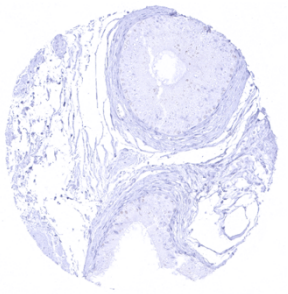
Appendix, mucosa - Complete assence of PSAP immunostaining in all epithelial and non-epithelial cell types of the appendix



Appendix, muscular wall

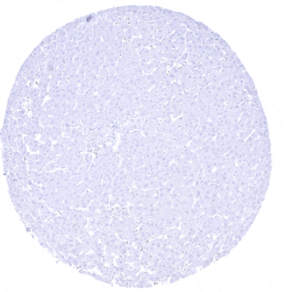


Endocervix

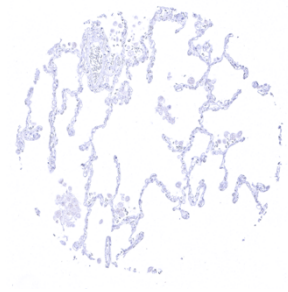


Epididymis

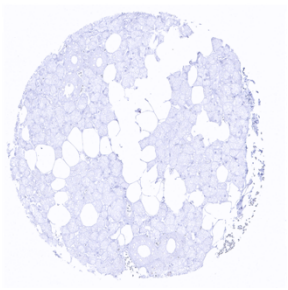
Ileum, mucosa



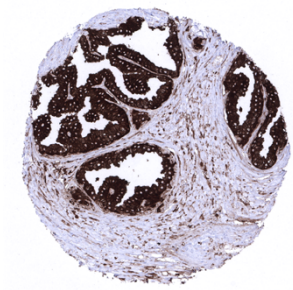
Liver



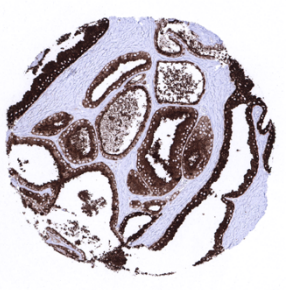
Lung



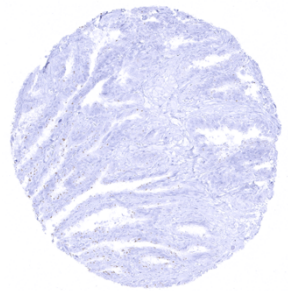
Parotid gland



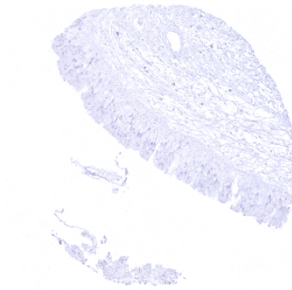
Prostate - Strong PSAP immunostaining in all acinar epithelial cells of the prostate. Some contamination occurs in the stroma due to the very high PSAP expression levels in epithelial cells



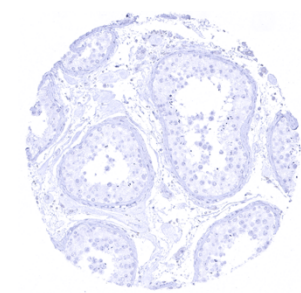
Prostate - Strong PSAP immunostaining in all acinar epithelial cells of the prostate



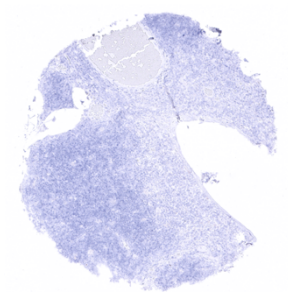
Seminal vesicle



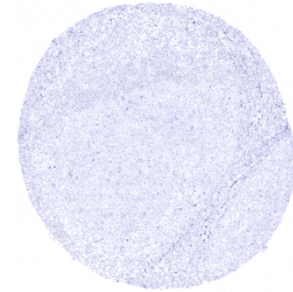
Sinus paranasales



Testis



Thymus



Tonsil