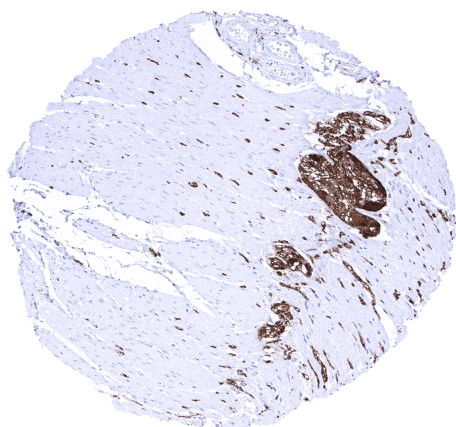


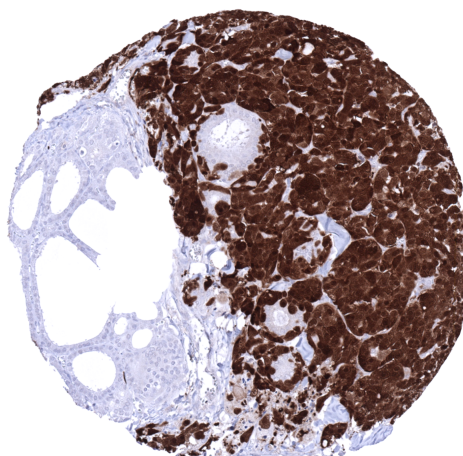
Anti- PGP9.5 Antibody MSVA-905R / Recombinant Rabbit monoclonal

Human SwissProt	P09936
Human Gene Symbol	UCHL1
Synonyms	Gracile Axonal Dystrophy; Neuron Cytoplasmic Protein 9.5; Park5; Parkinson Disease 5; PGP95; Protein Gene Product 9.5; Ubiquitin Carboxyl-terminal Esterase L1; Ubiquitin Carboxyl-terminal Hydrolase Isozyme L1; Ubiquitin Thioesterase L1; Ubiquitin Thiolesterase L1
Specificity	PGP9.5
Immunogen	Recombinant fragment of human UCHL1 protein
Isotype	Rabbit / IgG
Species Reactivity	Human

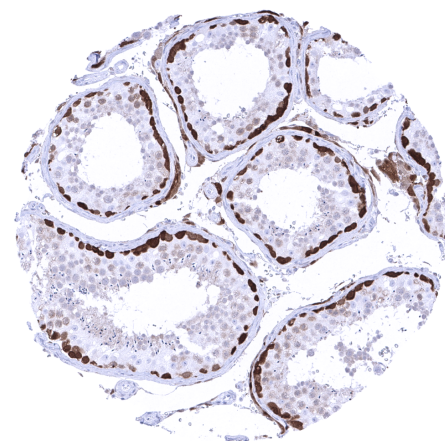
Localization	Cytoplasmic. Endoplasmic Reticulum membrane
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA
Positive Control	Pancreas: Islets cells and interspersed nerve fibres should show strong PGP9.5 staining.
Negative Control	Pancreas: Acinar cells and excretory ducts should not show any PGP9.5 immunostaining.



Colon descensens, muscular wall - Strong PGP9.5 immunostaining of nerve fibres and ganglions in the muscular wall of the colon descensens.



Medullary thyroid cancer showing strong PGP9.5 immunostaining.



In the testis, a strong PGP9.5 immunostaining is seen in spermatogonia. PGP9.5 staining decreases sharply in spermatocytes where it is only faint. A moderate PGP9.5 staining is seen in Leydig cells while Sertoli cells remain PGP9.5 negative.

Biology

PGP9.5, also termed Ubiquitin C-terminal hydrolase (UCH)-L1 is an important component of the ubiquitination/deubiquitination system and plays a role in the posttranslational modification of proteins. PGP9.5 is one of the most prevalent proteins in the brain and makes up for 1-2% of the brain protein mass. It occurs in the cytoplasm and axons of neurons. As part of the axonal skeleton, it plays a role in axonal transport. Altered function and expression of UCHL1 has been linked to neurodegenerative disease, cancer and other diseases. Several mutations and functional alterations of PGP9.5 have been found to be linked to neurodegenerative disease. In normal tissues, the strongest PGP9.5 immunostaining is seen in all neuronal cells (brain and ganglia) and corresponding axons in the brain, neurohypophysis and in peripheral nerves. A similarly strong staining occurs in spermatogonia of the testis, the adrenal medulla, islet cells of the pancreas, and in corpora lutea of the ovary. A moderate to strong PGP9.5 positivity is also seen in Leydig cells, the theca cell layer of follicular cysts, and stroma of ovary, and the adenohypophysis. In several epithelial tissues, scattered PGP9.5 positive cells or groups of cells which often show a mosaic pattern with high variability of the expression levels can occur. These include respiratory epithelium, fallopian tube, cauda epididymis, and rarely prostate epithelium. A weak PGP9.5 staining occurs in a fraction of lymphocytes, predominantly located in the germinal centres. Among tumors, high level PGP9.5 expression is common in all kinds of neural and neuroendocrine tumors but can also occur at variable frequency in a large number of additional tumor types. Altered PGP9.5 expression in cancer has been linked to chemotherapy resistance, metastasis, and patient prognosis.

Potential Research Applications

- the clinical/prognostic role of PGP9.5 expression needs to be evaluated in cancer.
- visualization and quantification of nerve fibres and ganglions in the colon.
- visualization and quantification of undifferentiated spermatogonia in the testis.

Protocol Suggestions

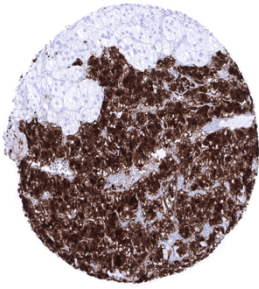
Dilution: 1:150 ; pH 7,8 is optimal. Freshly cut sections should be used (less than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

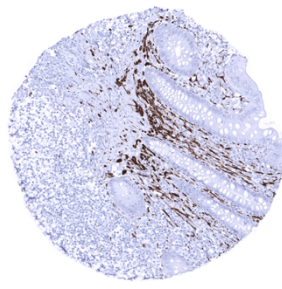
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

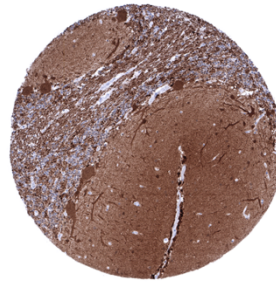
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



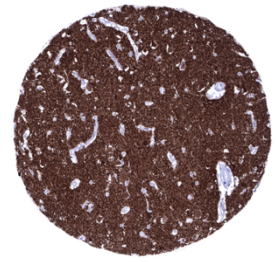
Adrenal gland



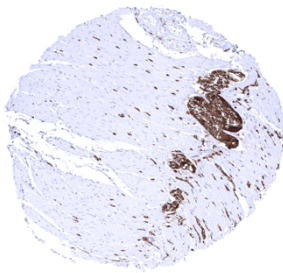
Appendix, mucosa



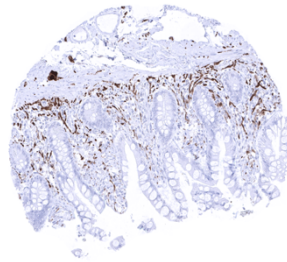
Cerebellum, cortex (Stratum moleculare)



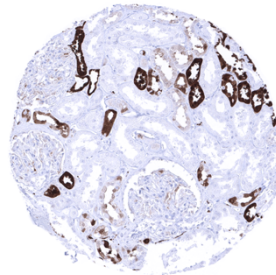
Cerebrum, grey



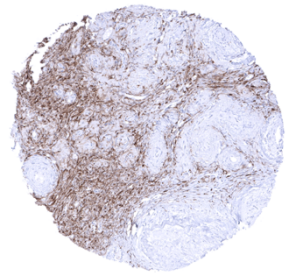
Colon descendens, muscular wall



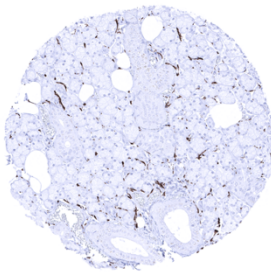
Ileum, mucosa



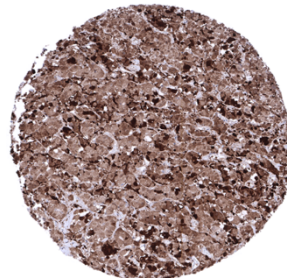
Kidney, cortex



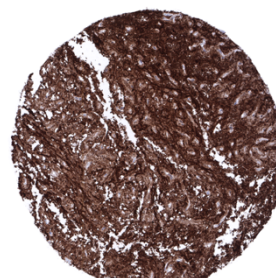
Ovary, stroma



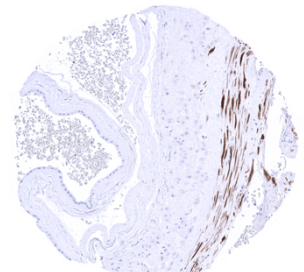
Parotid gland



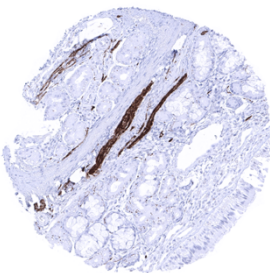
Pituitary, anterior lobe



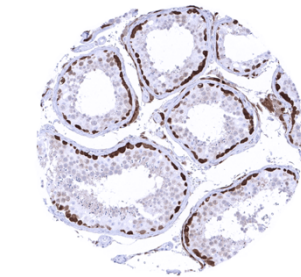
Pituitary, posterior lobe infundibulum



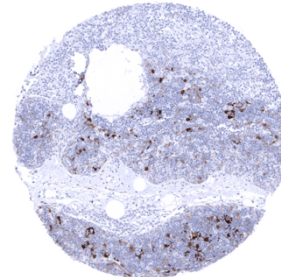
Placenta, mature, amnion and chorion



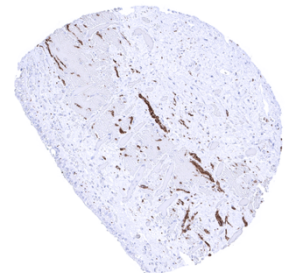
Sinus paranasales



Testis



Thymus



Urinary bladder, urothelium