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Anti-PGP9.5 UCHL1 Rabbit Monoclonal Antibody

Catalog # ABO13868

Product Information

Application	WB, IHC, IF, ICC, IP, FC
Primary Accession	P09936
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-PGP9.5 UCHL1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	7345
Other Names	Ubiquitin carboxyl-terminal hydrolase isozyme L1, UCH-L1, 3.4.19.12, Neuron cytoplasmic protein 9.5, PGP 9.5, PGP9.5, Ubiquitin thioesterase L1, UCHL1
Calculated MW	24824
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 IP 1:50 FC 1:50
Subcellular Localization	Cytoplasm. Endoplasmic reticulum membrane ; Lipid-anchor. About 30% of total UCHL1 is associated with membranes in brain.
Tissue Specificity	Found in neuronal cell bodies and processes throughout the neocortex (at protein level). Expressed in neurons and cells of the diffuse neuroendocrine system and their tumors. Weakly expressed in ovary. Down-regulated in brains from Parkinson disease and Alzheimer disease patients..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: AAAC-21
Immunogen	A synthesized peptide derived from human PGP9.5
Purification	Affinity-chromatography

Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	UCHL1
Function	Deubiquitinase that plays a role in the regulation of several processes such as maintenance of synaptic function, cardiac function, inflammatory response or osteoclastogenesis (PubMed:22212137, PubMed:23359680). Abrogates the ubiquitination of multiple proteins including WWTR1/TAZ, EGFR, HIF1A and beta-site amyloid precursor protein cleaving enzyme 1/BACE1 (PubMed:22212137, PubMed:25615526). In addition, recognizes and hydrolyzes a peptide bond at the C-terminal glycine of ubiquitin to maintain a stable pool of monoubiquitin that is a key requirement for the ubiquitin-proteasome and the autophagy- lysosome pathways (PubMed:12408865, PubMed:8639624, PubMed:9774100). Regulates amyloid precursor protein/APP processing by promoting BACE1 degradation resulting in decreased amyloid beta production (PubMed:22212137). Plays a role in the immune response by regulating the ability of MHC I molecules to reach cross-presentation compartments competent for generating Ag-MHC I complexes (By similarity). Mediates the 'Lys-48'-linked deubiquitination of the transcriptional coactivator WWTR1/TAZ leading to its stabilization and inhibition of osteoclastogenesis (By similarity). Deubiquitinates and stabilizes epidermal growth factor receptor EGFR to prevent its degradation and to activate its downstream mediators (By similarity). Modulates oxidative activity in skeletal muscle by regulating key mitochondrial oxidative proteins (By similarity). Enhances the activity of hypoxia-inducible factor 1-alpha/HIF1A by abrogateing its VHL E3 ligase-mediated ubiquitination and consequently inhibiting its degradation (PubMed:25615526).
Cellular Location	Cytoplasm. Endoplasmic reticulum membrane; Lipid- anchor. Note=About 30% of total UCHL1 is associated with membranes in brain. Localizes near and/or within mitochondria to potentially interact with mitochondrial proteins {ECO:0000250|UniProtKB:Q9R0P9}
Tissue Location	Found in neuronal cell bodies and processes throughout the neocortex (at protein level). Expressed in neurons and cells of the diffuse neuroendocrine system and their tumors. Weakly expressed in ovary. Down-regulated in brains from Parkinson disease and Alzheimer disease patients.

Images

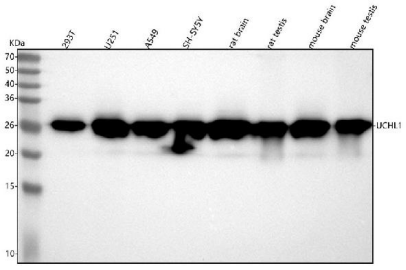
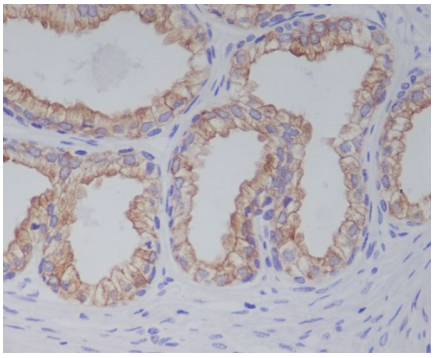
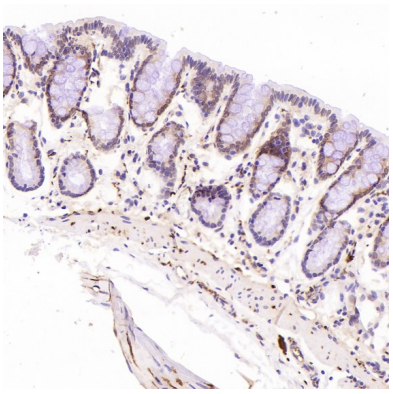


Figure 1. Western blot analysis of PGP95 using anti-PGP95 antibody (M01018-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human 293T whole cell lysates,
Lane 2: human U251 whole cell lysates,
Lane 3: human A549 whole cell lysates,
Lane 4: human SH-SY5Y whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: rat testis tissue lysates,
Lane 7: mouse brain tissue lysates,
Lane 8: mouse testis tissue lysates.

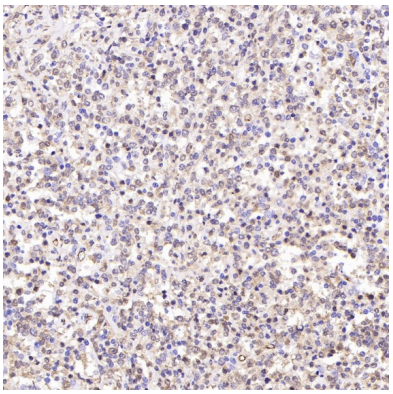
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PGP95 antigen affinity purified monoclonal antibody (Catalog # M01018-2) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PGP95 at approximately 25 kDa. The expected band size for PGP95 is at 25 kDa.



Immunohistochemical analysis of paraffin-embedded human prostate cancer, using PGP9.5 Antibody.

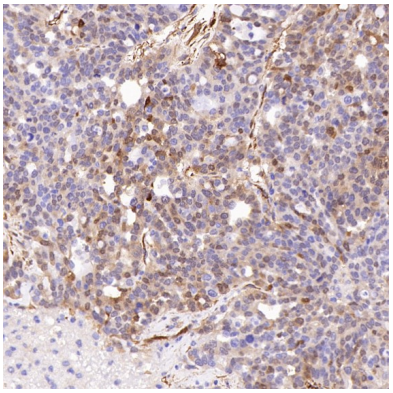


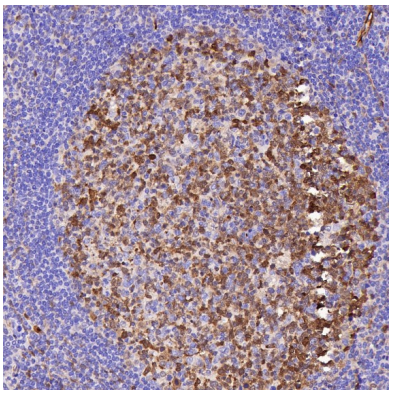
Immunohistochemical analysis of paraffin-embedded Rat stomach, using the Antibody at 1:500 dilution.



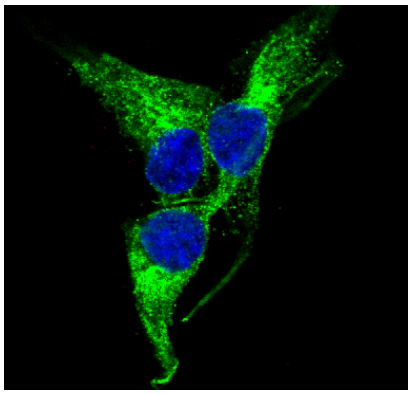
Immunohistochemical analysis of paraffin-embedded Human Hodgkin's lymphoma, using the Antibody at 1:300 dilution.

Immunohistochemical analysis of paraffin-embedded Human ovarian cancer, using the Antibody at 1:1000 dilution.





Immunohistochemical analysis of paraffin-embedded Human tonsil, using the Antibody at 1:1000 dilution.



Immunofluorescent analysis of U87-MG cells, using PGP9.5 Antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.