

UCHL1 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5142

Specification

UCHL1 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	P09936
Other Accession	Q00981 , Q6SEG5 , Q9R0P9 , Q60HC8 , P23356
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=25;M=25;Rat=25 KDa
Isotype	Rabbit IgG
Antigen Source	HUMAN

UCHL1 Antibody (C-term) - Additional Information

Gene ID 7345

Antigen Region
187-214

Other Names

UCHL1; Ubiquitin carboxyl-terminal hydrolase isozyme L1; Neuron cytoplasmic protein 9.5; PGP 9.5; Ubiquitin thioesterase L1

Dilution

WB~~1:1000

Target/Specificity

This UCHL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 187-214 amino acids from the C-terminal region of human UCHL1.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

UCHL1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

UCHL1 Antibody (C-term) - 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

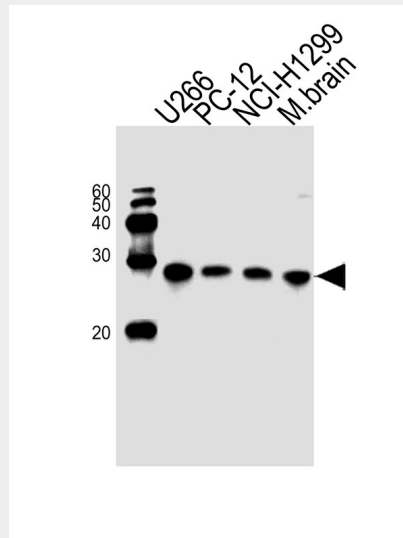
Found in neuronal cell bodies and processes throughout the neocortex (at protein level). Expressed in neurons and cells of the diffuse neuroendocrine system and their tumors. Weakly expressed in ovary. Down-regulated in brains from Parkinson disease and Alzheimer disease patients.

UCHL1 Antibody (C-term) - Protocols

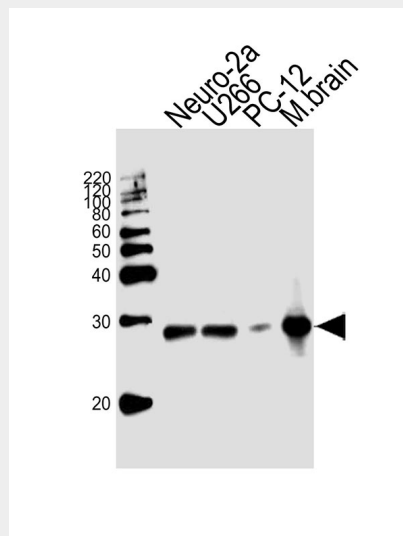
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

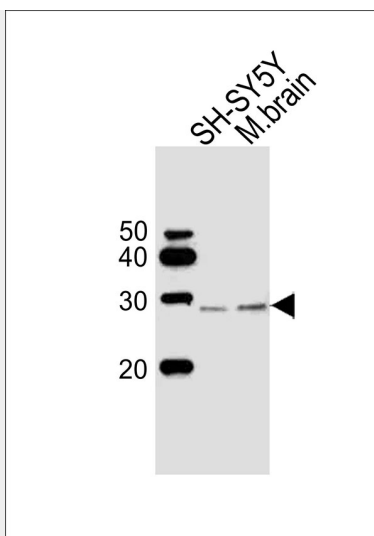
UCHL1 Antibody (C-term) - Images



Western blot analysis of lysates from U266,PC-12,NCI-H1299 cell line and mouse brain tissue lysate(from left to right), using UCHL1 Antibody (C-term)(Cat. #AW5142). AW5142 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



Western blot analysis of lysates from mouse Neuro-2a,U266,rat PC-12 cell line ,mouse brain tissue lysate(from left to right), using UCHL1 Antibody (C-term)(Cat. #AW5142). AW5142 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.Lysates at 20ug per lane.



Western blot analysis of lysates from SH-SY5Y cell line, mouse brain tissue lysate (from left to right), using UCHL1 Antibody (C-term)(Cat. #AW5142). AW5142 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.

UCHL1 Antibody (C-term) - Background

UCHL1 is a member of a gene family whose products hydrolyze small C-terminal adducts of ubiquitin to generate the ubiquitin monomer. Expression of UCHL1 is highly specific to neurons and to cells of the diffuse neuroendocrine system and their tumors. It is present in all neurons (Doran et al., 1983 [PubMed 6343558]).

UCHL1 Antibody (C-term) - References

- Maraganore, D.M., et al., *Mov Disord* 18(6):631-636 (2003).
- Nishikawa, K., et al., *Biochem. Biophys. Res. Commun.* 304(1):176-183 (2003).
- Liu, Y., et al., *Cell* 111(2):209-218 (2002).
- Caballero, O.L., et al., *Oncogene* 21(19):3003-3010 (2002).
- Saigoh, K., et al., *Nat. Genet.* 23(1):47-51 (1999).