

UCHL1 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM1959B**Specification**

UCHL1 Antibody - Product Information

Application	WB,E
Primary Accession	P09936
Other Accession	NP_004172.2
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,k
Calculated MW	24824

UCHL1 Antibody - Additional Information**Gene ID** 7345**Other Names**

Ubiquitin carboxyl-terminal hydrolase isozyme L1, UCH-L1, 6---, Neuron cytoplasmic protein 95, PGP 95, PGP95, Ubiquitin thioesterase L1, UCHL1

Target/Specificity

This UCHL1 monoclonal antibody is generated from mouse immunized with UCHL1 recombinant protein.

Dilution

WB~~1:120~1000

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.

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 is for research use only and not for use in diagnostic or therapeutic procedures.

UCHL1 Antibody - 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:[9774100](#), PubMed:[8639624](#), PubMed:[12408865](#)). 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 abrogating 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

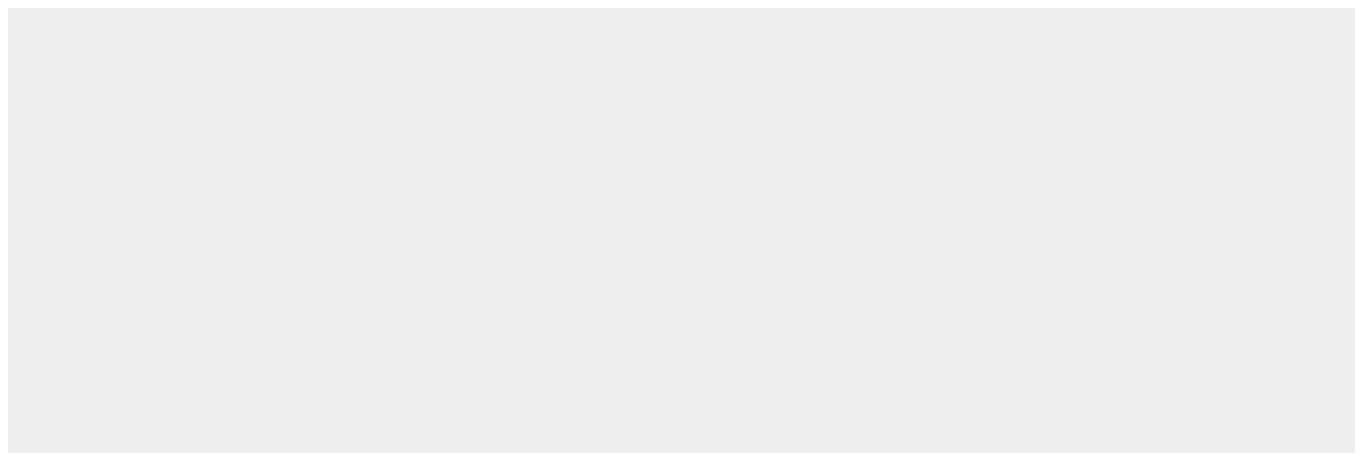
Found in neuronal cell bodies and processes throughout the neocortex (at protein level). Expressed in neurons and cells of the diffuse neuroendocrine system and their tumors. Weakly expressed in ovary. Down-regulated in brains from Parkinson disease and Alzheimer disease patients.

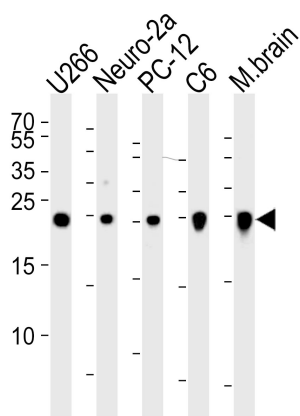
UCHL1 Antibody - Protocols

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

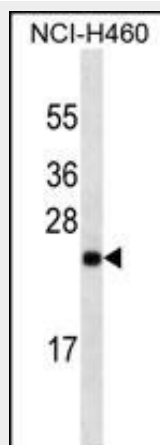
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

UCHL1 Antibody - Images





Western blot analysis of lysates from U266, mouse Neuro-2a, rat PC-12, C6 cell line and mouse brain tissue lysate (from left to right), using UCHL1 Antibody (Cat. #AM1959b). AM1959b was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L (HRP) at 1:3000 dilution was used as the secondary antibody. Lysates at 35 µg per lane.



UCHL1 Antibody (Cat. #AM1959b) western blot analysis in NCI-H460 cell line lysates (35 µg/lane). This demonstrates the UCHL1 antibody detected the UCHL1 protein (arrow).

UCHL1 Antibody - Background

The protein encoded by this gene belongs to the peptidase C12 family. This enzyme is a thiol protease that hydrolyzes a peptide bond at the C-terminal glycine of ubiquitin. This gene is specifically expressed in the neurons and in cells of the diffuse neuroendocrine system. Mutations in this gene may be associated with Parkinson disease.

UCHL1 Antibody - References

Martins-de-Souza, D., et al. J Psychiatr Res 44(14):989-991(2010)
Hussain, S., et al. Leukemia 24(9):1641-1655(2010)
Ma, Y., et al. J. Cell. Biochem. 110(6):1512-1519(2010)
Wu, Y.R., et al. Clin. Chim. Acta 411 (13-14), 955-958 (2010) :
Li, L., et al. Clin. Cancer Res. 16(11):2949-2958(2010)