

Anti-Ubiquitin C-terminal Hydrolase 1 (UCHL1) Antibody

Our Anti-Ubiquitin C-terminal Hydrolase 1 (UCHL1) primary antibody from PhosphoSolutions is mouse m Catalog # AN1601

Specification

Anti-Ubiquitin C-terminal Hydrolase 1 (UCHL1) Antibody - Product Information

Application WB, IHC Primary Accession P09936

Reactivity Bovine, Chicken, Drosophila, C.Elegans

Host Mouse Clonality Monoclonal

Isotype IgG1
Calculated MW 24824

Anti-Ubiquitin C-terminal Hydrolase 1 (UCHL1) Antibody - Additional Information

Gene ID **7345**

Other Names

Epididymis luminal protein 117 antibody, Epididymis secretory protein Li 53 antibody, HEL 117 antibody, HEL S 53 antibody, NDGOA antibody, Neuron cytoplasmic protein 9.5 antibody, OTTHUMP00000218137 antibody, OTTHUMP00000218139 antibody, OTTHUMP00000218140 antibody, OTTHUMP00000218141 antibody, Park 5 antibody, PARK5 antibody, PGP 9.5 antibody, PGP9.5 antibody, Protein gene product 9.5 antibody, Ubiquitin C terminal esterase L1 antibody, Ubiquitin C terminal hydrolase antibody, Ubiquitin carboxyl terminal hydrolase isozyme L1 antibody, Ubiquitin carboxyl-terminal hydrolase isozyme L1 antibody, Ubiquitin thiolesterase L1 antibody, Ubiquitin thiolesterase L1 antibody, Ubiquitin thiolesterase L1 antibody, UCHL1 antibody, UCHL1 antibody, UCHL1 antibody

Target/Specificity

Ubiquitin C-terminal hydrolase 1 (UCHL1) is also known as ubiquitin carboxyl esterase L1, ubiquitin thiolesterase, neuron-specific protein PGP9.5 and Park5. It was originally identified as a major component of the neuronal cytoplasm from 2-dimensional gel analysis of brain tissues, and was given the name PGP9.5 (1). It was later found that ubiquitin C-terminal hydrolase enzyme activity was associated with the PGP9.5 protein (2). The ubiquitin C-terminal hydrolases cleave ubiquitin from other molecules. Regulation of the ubiquitin pathway is very important and many disease states are associated with defects in this pathway. Genetic knockout of UCHL1 in mice results in a motor neuron degeneration similar to the spontaneous gracile axonal dystrophy (gad) mutant mice (3). Point mutations in the UCHL1 gene are associated with some forms of human Parkinson's disease (4). Since UCHL1 is heavily expressed in neurons, it is released in large amounts following injury or degeneration, so the detection of UCHL1 in CSF and other bodily fluids can be used as a biomarker.

Dilution

WB~~1:1000 IHC~~1:100~500

Format

Protein G Purified







Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti-Ubiquitin C-terminal Hydrolase 1 (UCHL1) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

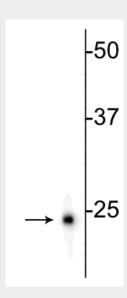
Blue Ice

Anti-Ubiquitin C-terminal Hydrolase 1 (UCHL1) Antibody - Protocols

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

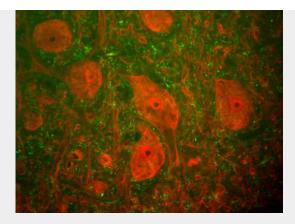
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Anti-Ubiquitin C-terminal Hydrolase 1 (UCHL1) Antibody - Images

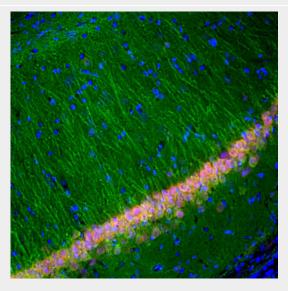


Western blot of rat hippocampal homogenate showing specific immunolabeling of the ~24 kDa UCHL1 protein.

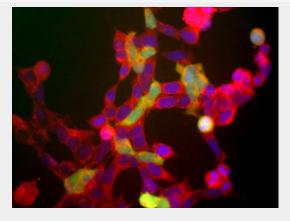




Immunofluorescence of a section of rat spinal cord labeled with anti-UCHL1 (cat. 2060-UCHL1, 1:500, red) and anti-Neurofilament H (cat. 1451-NFH, 1:25,000, green). The large cells are alpha-motorneurons and UCHL1 fills the cytoplasm of their perikarya and dendrites.



Immunofluorescence of a section of rat hippocampus showing specific labeling of UCHL1 (cat. 2060-UCHL1, 1:5000, green) in cell bodies and dendrites of neurons, and specific labeling of FOX3 (red). The blue is DAPI staining of nuclear DNA.



Immunolabeling of HEK 293 cells labeled with anti-UCHL1 antibody (cat. 2060-UCHL1, green, 1:500) and anti-neuron specific enolase antibody (cat. 1520-NSE, red, 1:500). The blue is staining nuclear DNA.

Anti-Ubiquitin C-terminal Hydrolase 1 (UCHL1) Antibody - Background





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Ubiquitin C-terminal hydrolase 1 (UCHL1) is also known as ubiquitin carboxyl esterase L1, ubiquitin thiolesterase, neuron-specific protein PGP9.5 and Park5. It was originally identified as a major component of the neuronal cytoplasm from 2-dimensional gel analysis of brain tissues, and was given the name PGP9.5 (1). It was later found that ubiquitin C-terminal hydrolase enzyme activity was associated with the PGP9.5 protein (2). The ubiquitin C-terminal hydrolases cleave ubiquitin from other molecules. Regulation of the ubiquitin pathway is very important and many disease states are associated with defects in this pathway. Genetic knockout of UCHL1 in mice results in a motor neuron degeneration similar to the spontaneous gracile axonal dystrophy (gad) mutant mice (3). Point mutations in the UCHL1 gene are associated with some forms of human Parkinson's disease (4). Since UCHL1 is heavily expressed in neurons, it is released in large amounts following injury or degeneration, so the detection of UCHL1 in CSF and other bodily fluids can be used as a biomarker.