

**Anti-UCHL1 / PGP9.5 Antibody (clone 31A3)**  
**Mouse Anti Human Monoclonal Antibody**  
**Catalog # ALS17389**

**Specification**

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**Anti-UCHL1 / PGP9.5 Antibody (clone 31A3) - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P09936</a>
Predicted	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,k
Calculated MW	24824

**Anti-UCHL1 / PGP9.5 Antibody (clone 31A3) - Additional Information**

**Gene ID** 7345

**Alias Symbol** UCHL1

**Other Names**

UCHL1, Ubiquitin C-terminal hydrolase, PARK5, PGP9.5, PGP95, Ubiquitin thioesterase L1, Neuron cytoplasmic protein 9.5, PGP 9.5, Uch-L1

**Target/Specificity**

Human UCHL1 / PGP9.5

**Reconstitution & Storage**

PBS, 0.05% sodium azide. Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.

**Precautions**

Anti-UCHL1 / PGP9.5 Antibody (clone 31A3) is for research use only and not for use in diagnostic or therapeutic procedures.

**Anti-UCHL1 / PGP9.5 Antibody (clone 31A3) - 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](http://www.uniprot.org/citations/22212137), PubMed:[23359680](http://www.uniprot.org/citations/23359680)). Abrogates the ubiquitination of multiple proteins including WWTR1/TAZ, EGFR, HIF1A and beta-site amyloid precursor protein cleaving enzyme 1/BACE1 (PubMed:[22212137](http://www.uniprot.org/citations/22212137), PubMed:[25615526](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/12408865" target="\_blank">12408865</a>, PubMed:<a href="http://www.uniprot.org/citations/8639624" target="\_blank">8639624</a>, PubMed:<a href="http://www.uniprot.org/citations/9774100" target="\_blank">9774100</a>). Regulates amyloid precursor protein/APP processing by promoting BACE1 degradation resulting in decreased amyloid beta production (PubMed:<a href="http://www.uniprot.org/citations/22212137" target="\_blank">22212137</a>). 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:<a href="http://www.uniprot.org/citations/25615526" target="\_blank">25615526</a>).

#### **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.

### **Anti-UCHL1 / PGP9.5 Antibody (clone 31A3) - 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](#)

### **Anti-UCHL1 / PGP9.5 Antibody (clone 31A3) - Images**