

UCHL1 active protein

UCHL1 Protein, Human, Recombinant (His Tag)

CATALOG #
AAA257988

HOST
E Coli

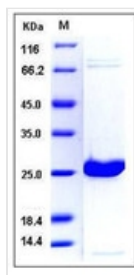
PRODUCT SYNONYMS

UCHL1; UCHL1 Protein; Human; Recombinant (His Tag); HEL-117; NDGOA; PARK5; PGP9.5; PGP95; Uch-L1; Human UCHL1/PGP9.5 Protein (His Tag); HEL-117 Protein; NDGOA Protein; PARK5 Protein; PGP9.5 Protein; PGP95 Protein; Uch-L1 Protein; ubiquitin carboxyl-terminal esterase L1 (ubiquitin thiolesterase); UCHL1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	≥92% as determined by SDS-PAGE
Form/Format	Supplied as sterile 20mM Tris, 500mM NaCl, 20% glycerol, 1mM DTT, pH 8.0
Concentration	0.71mg/mL (varies by lot)
Sequence	Gln2-Ala223
Source Note	E.coli-derived Human UCHL1 / PGP9.5 Protein (His Tag)(Gln2-Ala223, Accession# NP_004172.2)
Activity	Measured by the hydrolysis of UbiquitinAMC. The specific activity is >100 pmoles/min/ug.
Predicted N Terminal	Met
Tag	N-His
Protein Construction	A DNA sequence encoding the native human UCHL1 (NP_004172.2)(Gln 2-Ala 223) was expressed, with a polyhistidine tag at the N-terminus.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for UCHL1 active protein	Background: Ubiquitin carboxyl-terminal hydrolase isozyme L1, also known as UCH-L1, Ubiquitin thioesterase L1, PGP9.5 and UCHL1, is a deubiquitinating enzyme with important functions in recycling of ubiquitin. Regulated proteolysis by the ubiquitin pathway has been implicated in control of the cell cycle, transcriptional activation, cell fate and growth, and synaptogenesis. The ubiquitin-proteasome system is involved in synaptic plasticity and is proposed to be part of a molecular switch that converts short-term synaptic potentiation to long-term changes in synaptic strength. UCHL1 is found in neuronal cell bodies and processes throughout the neocortex (at protein level). It is expressed in neurons and cells of the diffuse neuroendocrine system and their tumors. UCHL1 is weakly expressed in ovary. UCHL1 is a ubiquitin-protein hydrolase. It is involved both in the processing of ubiquitin precursors and of ubiquitinated proteins. This enzyme is a thiol protease that recognizes and hydrolyzes a peptide bond at the C-terminal glycine of ubiquitin. UCHL1 also binds to free monoubiquitin and may prevent its degradation in lysosomes. The homodimer of UCHL1 may have ATP-independent ubiquitin ligase activity. UCHL1 dysfunction has been associated with neurodegeneration in Parkinson's, Alzheimer's, and Huntington's disease patients. Reduced UCHL1 function may jeopardize the survival of CNS neurons.
References	Wada H., et al., 1998, Biochem. Biophys. Res. Commun. 251:688-92. Choi J., et al., 2004, J. Biol. Chem. 279:13256-64. Lombardino,A.2005, et al., J.Proc Natl Acad Sci.USA102 (22):8036-41 Okochi-Takada,E. et al., 2006, Int J Cancer. 119 (6):1338-44. Zetterberg, M. et al., 2010, Mol Neurodegener 5 :11.

NCBI AND UNIPROT INFORMATION

NCBI GI #	21361091
NCBI GeneID	7345
NCBI Accession #	NP_004172.2
NCBI GenBank Nucleotide #	NM_004181.4
UniProt Accession #	P09936; Q4W5K6; Q71UM0
Molecular Weight	Predicted Molecular Mass: 25.6 kDa Molecular Mass Note: The recombinant human UCHL1 consisting of 229 amino acids and migrates as an 25.6 kDa band in SDS-PAGE under reducing conditions as predicted.
NCBI Official Full Name	ubiquitin carboxyl-terminal hydrolase isozyme L1
NCBI Official Synonym Full Names	ubiquitin carboxyl-terminal esterase L1 (ubiquitin thiolesterase)
NCBI Official Symbol	UCHL1
NCBI Official Synonym Symbols	PARK5; PGP95; PGP9.5; Uch-L1; PGP 9.5
NCBI Protein Information	ubiquitin carboxyl-terminal hydrolase isozyme L1; ubiquitin thioesterase L1; neuron cytoplasmic protein 9.5; ubiquitin C-terminal hydrolase
UniProt Protein Name	Ubiquitin carboxyl-terminal hydrolase isozyme L1
UniProt Gene Name	UCHL1
UniProt Synonym Gene Names	UCH-L1; PGP9.5
UniProt Entry Name	UCHL1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.