UCHL1 / PGP9.5 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	UCHL1 / PGP9.5, Recombinant Protein
Full Product Name	Recombinant Human UCHL1 / PGP9.5 Protein (His tag)
Product Gene Name	UCHL1 / PGP9.5 recombinant protein
Product Synonym Names	UCHL1, PARK5, PGP 9.5, PGP9.5, PGP95, Uch-L1
Host	E Coli
Form/Format	Lyophilized from sterile 20mM Tris, 500mM NaCl, 20% glycerol, 1mM DTT, pH 8.0
Purity/Purification	> 92 % as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -70 degree C
Molecular Weight	24,824 Da
OMIM	AC095043 Genomic DNA
3D Structure	ModBase 3D Structure for P09936
Predicted N Terminal	Met
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Application Notes for UCHL1 / PGP9.5 recombinant protein	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.
Related Product Information for UCHL1 / PGP9.5 recombinant protein	Background: Ubiquitin carboxyl-terminal hydrolase isozyme L1, also known as UCH-L1, Ubiquitin thioesterase L1, PGP9.5 and UCHL1, is a deubiqutinating 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. Description: A DNA sequence encoding the native human UCHL1 (NP_004172.2) (Gln 2-Ala 223) was expressed, with a polyhistide tag at the N-terminus.
Other Notes	Small volumes of UCHL1 / PGP9.5 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for UCHL1 / PGP9.5 purchase	MBS2545698 is a recombinant protein targeting UCHL1 / PGP9.5. Also known as Recombinant Human UCHL1 / PGP9.5 Protein (His tag). Host: E Coli.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for UCHL1 / PGP9.5. It may not necessarily be applicable to this product.

NCBI GI #	21361091
NCBI GeneID	7345
NCBI Accession #	NP_004172.2
UniProt Primary Accession #	P09936
UniProt Secondary Accession #	Q4W5K6; Q71UM0
UniProt Related Accession #	P09936
GenBank Nucleotide #	NM_004181.4
NCBI Official Full Name	ubiquitin carboxyl-terminal hydrolase isozyme L1
NCBI Official Synonym Full Names	ubiquitin C-terminal hydrolase L1
NCBI Official Symbol	UCHL1
NCBI Official Synonym Symbols	NDGOA; PARK5; PGP95; PGP9.5; Uch-L1; HEL-117; PGP 9.5; HEL-S-53
UniProt Protein Name	Ubiquitin carboxyl-terminal hydrolase isozyme L1
UniProt Synonym Protein Names	Neuron cytoplasmic protein 9.5; PGP 9.5; PGP9.5; Ubiquitin thioesterase L1
UniProt Gene Name	UCHL1
UniProt Synonym Gene Names	UCH-L1; PGP9.5
NCBI Protein Information	ubiquitin carboxyl-terminal hydrolase isozyme L1
NCBI Summary for UCHL1 / PGP9.5	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.[provided by RefSeq, Sep 2009]
UniProt Comments for UCHL1 / PGP9.5	UCHL1: Ubiquitin-protein hydrolase 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. Also binds to free monoubiquitin and may prevent its degradation in lysosomes. The homodimer may have ATP-independent ubiquitin ligase activity. Monomer. Homodimer. Interacts with SNCA. Interacts with COPS5. Found in neuronal cell bodies and processes throughout the neocortex. 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. Belongs to the peptidase C12 family. Protein type: Cell development/differentiation; EC 3.4.19.12; Ligase; Protease; Ubiquitin conjugating system Chromosomal Location of Human Ortholog: 4p13 Cellular Component: cytoplasm; nucleoplasm; plasma membrane Molecular Function: alpha-2A adrenergic receptor binding; cysteine-type endopeptidase activity; omega peptidase activity; protein binding; ubiquitin binding; ubiquitin protein ligase binding; ubiquitin-specific protease activity Biological Process: negative regulation of MAP kinase activity; protein deubiquitination; regulation of macroautophagy Disease: Neurodegeneration With Optic Atrophy, Childhood-onset; Parkinson Disease 5, Autosomal Dominant
Research Articles on UCHL1 / PGP9.5	**1.** cytoplasmic accumulation of P53 was strongly associated with the unmethylated UCHL1 profile (P = 0.006), supporting the relationship between these two proteins in sporadic colorectal cancer
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.

Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/recombinant-protein/uchl1-pgp9-5/2545698