Recombinant Human Ubiquitin thioesterase L1 /UCHL1 protein

Catalog No.: RP03231

Sequence Information

Species
Human

Gene ID
7345

Swiss Prot
P09936

Tags
C-His

Synonyms
UCHL1,Ubiquitin carboxyl-terminal hydrolase isozyme L1, UCH-L1, EC:3.4.19.12, Neuron cytoplasmic protein 9.5, PGP 9.5, PGP9.5, Ubiquitin thioesterase L1

Product Information

Source
E. coli

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
25.66 kDa

Observed MW
26-30 kDa

Endotoxin
< 1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of 20mM Tris-HCl, 250mM NaCl, 0.05% Tween80, 1mM DTT, pH 8.5.

Reconstitution
Centrifμge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Ubiquitin carboxyl-terminal hydrolase isozyme L1, also known as UCH-L1, 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.

Basic Information

Description
Recombinant Human Ubiquitin thioesterase L1/UCHL1 protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Met1-Ala223)of Human Ubiquitin thioesterase L1/UCHL1 (Accession #NP_004172.2) fused with a His tag at the C-terminus.

Activity

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

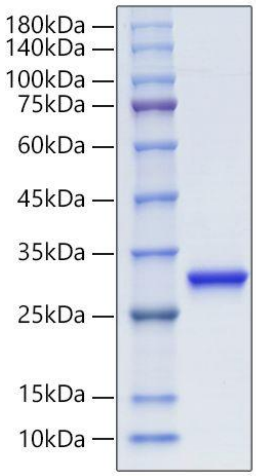
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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Validation Data



Recombinant Human Ubiquitin thioesterase L1/UCHL1 protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.

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