



LD Biopharma, Inc.
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<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human UCHL1 Protein
Catalog Number: hRP-1266
Manufacturer: LD Biopharma, Inc.

Introduction

The protein encoded by Human ubiquitin carboxyl-terminal hydrolase isozyme L1 (UCHL1) 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.

Full-length mature form of human UCHL1 cDNA (1 – 220 aa, derived from BC005117) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: UCHL1 (NDGOA; PARK5; PGP9.5; PGP95)
Accession Number: NP_004172
Species: Human
Size: 50 µg / Vial
Composition: 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Sucrose.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Schroder, C., et al., *Prognostic relevance of ubiquitin C-terminal hydrolase L1 (UCH-L1) mRNA and protein expression in breast cancer patients*. J. Cancer Res. Clin. Oncol. 139 (10),



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1745-1755 (2013)

Fellenberg, J., et al., *Rescue of silenced UCHL1 and IGFBP4 expression suppresses clonogenicity of giant cell tumor-derived stromal cells*. *Cancer Lett.* 336 (1), 61-67 (2013)

Kabuta, T., et al., *Ubiquitin C-terminal hydrolase L1 (UCH-L1) acts as a novel potentiator of cyclin-dependent kinases to enhance cell proliferation independently of its hydrolase activity*. *J. Biol. Chem.* 288 (18), 12615-12626 (2013)

Applications

1. May be used for in vitro UCHL1 protein mediated neuronal cell differentiation regulation study with “ProFectin” based intracellular delivery of this protein.
2. May be used for UCHL1 protein – protein interaction assay.
3. As Enzymatic substrate for various proteases.
4. Potential diagnostic biomarker protein for various cancer diseases.
5. May be used for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGFQLKPMEINPEMLNKVLSRLGVAGQWRFVDVLGLEE
ESLGSVPAPACALLLLFPLTAQHENFRKKQIEELKGQEVSPKVYFMKQTIGNSCGTIGLIHAVA
NNQDKLGFEDGSVLKQFLSETEKMSPEDRAKCFEKNEAIQAAHDAVAQEGQCRVDDKVNHFHIL
FNNVDGHLIELDGRMPFPVNHGASSEDTELLKDAAKVCREFTEREQGEVRFSAVALC