

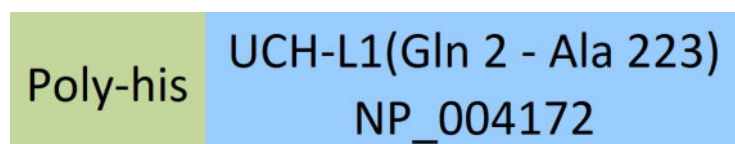
**Synonym**

UCHL1,PGP9.5

**Source**

Human UCH-L1, His Tag (UC1-H5140) is expressed from E.coli cells. It contains AA Gln 2 - Ala 223 (Accession # NP\_004172).

Predicted N-terminus: Met

**Molecular Characterization**

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 25.7 kDa. The protein migrates as 27-28 kDa under reducing (R) condition (SDS-PAGE).

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH8.0. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

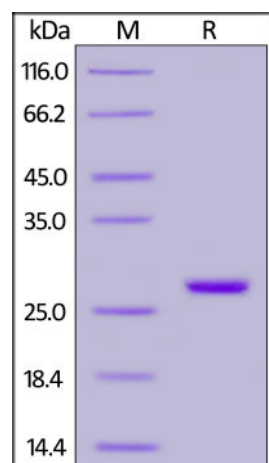
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human UCH-L1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

**Background**

Ubiquitin carboxyl-terminal hydrolase isozyme L1 (UCHL1), a member of the peptidase C12 family, is also known as neuron cytoplasmic protein 9.5 (PGP 9.5) and ubiquitin thioesterase L1. About 30% of total UCHL1 is associated with membranes in brain. UCHL1 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. Also, UCHL1 can bind to free monoubiquitin and may prevent its degradation in lysosomes. The homodimer of UCHL1 may have ATP-independent ubiquitin ligase activity. Furthermore, the mutations of UCHL1 gene can result in parkinson disease 5.

## References

- (1) [Choi J., et al., 2004, J. Biol. Chem. 279:13256-13264.](#)
- (2) [Liu Y., et al., 2002, Cell 111:209-218.](#)
- (3) [Choudhary C., et al., 2009, Science 325:834-840.](#)

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.