

## UCHL3 Protein, Mouse (His)

Cat. No.:	HY-P76119
Synonyms:	Ubiquitin carboxyl-terminal hydrolase isozyme L3; UCH-L3; Ubiquitin thioesterase L3
Species:	Mouse
Source:	E. coli
Accession:	Q9JKB1 (E2-A230)
Gene ID:	50933
Molecular Weight:	Approximately 30 kDa

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris, 150 mM NaCl, 20% Glycerol, pH 7.7.. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	UCHL3 Protein is a deubiquitinating enzyme (DUB) that plays a crucial role in controlling the levels of cellular ubiquitin by processing ubiquitin precursors and ubiquitinated proteins. As a thiol protease, it specifically recognizes and hydrolyzes the peptide bond at the C-terminal glycine of ubiquitin or NEDD8. UCHL3 Protein exhibits a preference for 'Lys-48'-linked ubiquitin chains and has a 10-fold preference for Arg and Lys at position P3''. Its deubiquitinating activity includes the deubiquitination of ENAC in apical compartments, regulating the recycling of the apical membrane. Additionally, UCHL3 Protein indirectly enhances the phosphorylation of IGFIR, AKT, and FOXO1, thereby promoting insulin signaling and insulin-induced adipogenesis. It is also essential for stress-response retinal, skeletal muscle, and germ cell maintenance. Furthermore, UCHL3 Protein may be involved in working memory and can hydrolyze UBB(+1), a mutated form of ubiquitin that is resistant to degradation by the proteasome.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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