

Active Recombinant Full Length Human UCHL3, GST-tagged

Cat. No. UCHL3-180H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human UCHL3 (amino acid residues 1-230), fused with N-terminal GST, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	1-230 a.a.
Description	Ubiquitin carboxyl-terminal hydrolase L3 (UCHL3) is a member of the cysteine protease enzyme family and cloning of the human gene was first described by Wilkinson et al. (1989). The UCH subfamily of DUBs consists of four members: UCHL1, UCHL3, UCHL5 and BRCA1-associated protein-1 (BAP1) with UCHL3 sharing 54% homology with UCHL1 (Day and Thompson, 2010). Unlike other UCHs, UCHL3 can function as a C-terminal hydrolase for both NEDD8 and ubiquitin. UCHL3 may play a physiologically significant role in the cleavage of the C-terminus of NEDD8, which is required for NEDD8 to conjugate to target proteins (Wada et al., 1998). There is accumulating evidence suggesting that the expression and activity of UCH enzymes in cancers are abnormal. Increased levels of both UCHL1 and UCHL3 mRNA are associated with early tumour recurrence of invasive breast cancer and poor prognosis (Fang et al., 2010).
Form	50 mM HEPES pH 7.5, 150 mM sodium chloride, 2 mM dithiothreitol, 10% glycerol
Bio-activity	Deubiquitylase Enzyme Assay: The activity of GST-UCHL3 was validated by

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determining the increase in fluorescence measured as a result of the enzyme catalysed cleavage of the fluorogenic substrate Ubiquitin-Rhodamine110-Glycine generating Ubiquitin and Rhodamine110-Glycine. Incubation of the substrate in the presence or absence of GST-UCHL3 was compared confirming the deubiquitylating activity of GST-UCHL3.

Molecular Mass	~53 kDa
Purity	>95% by SDS-PAGE
Storage	12 months at -70°C. Avoid multiple freeze/thaw cycles.
Concentration	0.5 mg/ml

GENE INFORMATION

Gene Name	UCHL3 ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) [Homo sapiens]
Official Symbol	UCHL3
Synonyms	UCHL3; ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase); ubiquitin carboxyl-terminal hydrolase isozyme L3; ubiquitin thiolesterase; ubiquitin thioesterase L3; UCH-L3;
Gene ID	7347
mRNA Refseq	NM_006002
Protein Refseq	NP_005993

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MIM	603090
UniProt ID	P15374
Chromosome Location	13q21.33
Function	cysteine-type peptidase activity; peptidase activity; ubiquitin binding; ubiquitin thiolesterase activity;

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