

## UCHL1 Antibody

Catalog No: #32615

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

## Description

Product Name	UCHL1 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB IHC IF IP
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total UCHL1 protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human UCHL1.
Target Name	UCHL1
Other Names	PARK5; PGP9.5; Uch-L1;
Accession No.	Swiss-Prot:P09936NCBI Gene ID:7345
SDS-PAGE MW	25KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

## Application Details

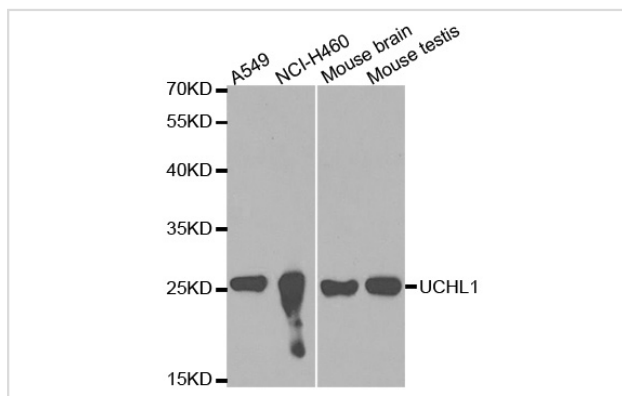
Western blotting: 1:500 - 1:2000

Immunohistochemistry: 1:50 - 1:200

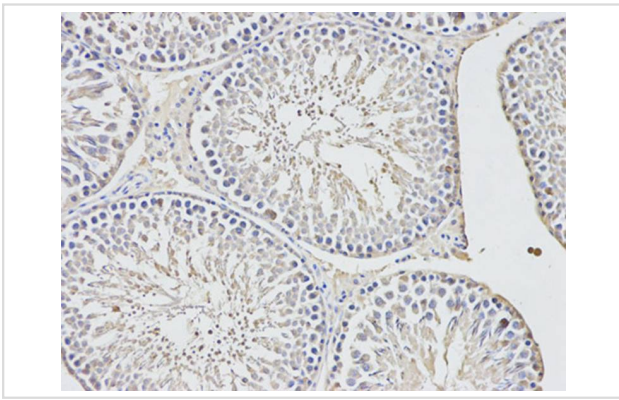
Immunofluorescence: 1:50 - 1:200

Immunoprecipitation: 1:20 - 1:100

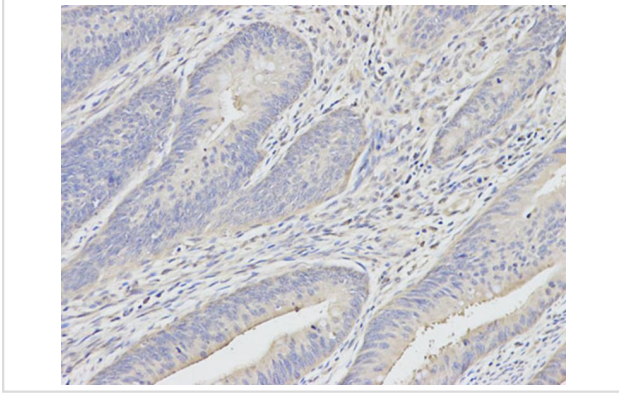
## Images



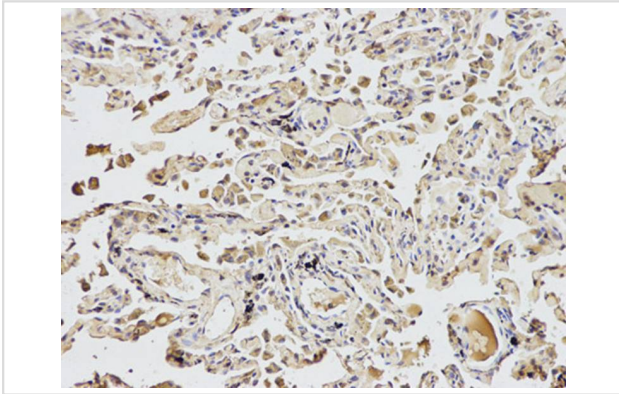
Western blot analysis of extracts of various cell lines, using UCHL1 antibody.



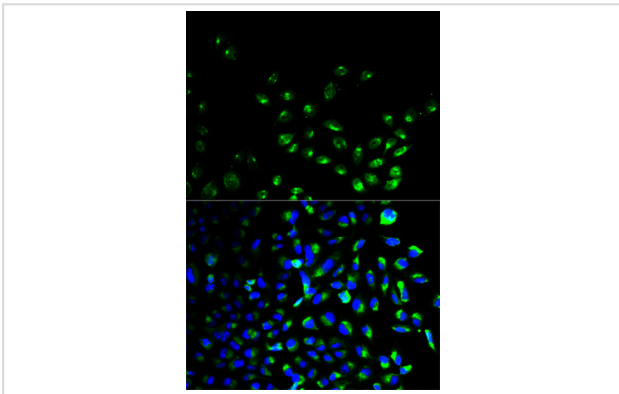
Immunohistochemical analysis of paraffin-embedded rat testis using UCHL1 antibody at dilution of 1:200 (200x lens).



Immunohistochemical analysis of paraffin-embedded human rectal cancer using UCHL1 antibody at dilution of 1:200 (200x lens).



Immunohistochemical analysis of paraffin-embedded human lung using UCHL1 antibody at dilution of 1:200 (200x lens).



Immunofluorescence analysis of HeLa cell using UCHL1 antibody. Blue: DAPI for nuclear staining.

## Background

Protein ubiquitination and deubiquitination are reversible processes catalyzed by ubiquitinating enzymes (UBEs) and deubiquitinating enzymes (DUBs) (1,2). DUBs are categorized into 5 subfamilies: USP, UCH, OTU, MJD, and JAMM. UCHL1, UCHL3, UCHL5/UCH37, and BRCA-1-associated protein-1 (BAP1) belong to the UCH family of DUBs, which all possess a conserved catalytic domain (UCH domain) of about 230 amino acids. UCHL5 and BAP1 have unique extended C-terminal tails. UCHL1 is abundantly expressed in neuronal tissues and testes, while UCHL3 expression is more widely distributed (3,4). Although UCHL1 and UCHL3 are the most closely related UCH family members with about 53% identity, their biochemical properties differ in that UCHL1 binds monoubiquitin and UCHL3 shows dual specificity toward both ubiquitin (Ub) and NEDD8, a Ub-like molecule. In particular, UCHL3 functions as a Ub hydrolase involved in the processing of both Ub precursors and ubiquitinated substrates, generating free

monomeric Ub. This is accomplished through the ability of UCHL3 to recognize and hydrolyze isopeptide bonds at the C-terminal glycine of either Ub or NEDD8 (5-7). Recent functional studies have identified UCH-L3 as a critical regulator of adipogenesis through its ability to promote IGF-IR and insulin receptor signaling (8). Furthermore, UCHL3 has been shown to promote deubiquitination, recycling, and cell surface expression of the epithelial sodium channel (9).

---

Note: This product is for in vitro research use only and is not intended for use in humans or animals.