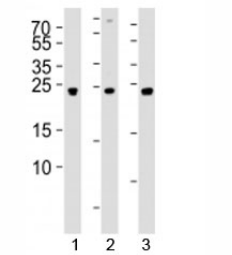
UCHL3 Antibody / Ubiquitin C-terminal hydrolase L3 (F47954)

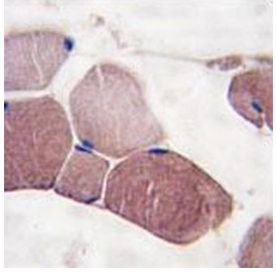
Catalog No.	Formulation	Size
F47954-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F47954-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

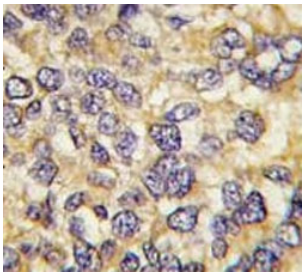
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Bovine, Pig
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P15374
Applications	Western Blot : 1:1000 IHC (Paraffin) : 1:10-1:50
Limitations	This UCHL3 antibody is available for research use only.



Western blot analysis of lysate from 1) 293, 2) SW620, and 3) U-87 MG cell line using UCHL3 antibody at 1:1000. Predicted molecular weight ~26 kDa.



IHC analysis of FFPE human skeletal muscle tissue stained with UCHL3 antibody



IHC analysis of FFPE human breast carcinoma tissue stained with UCHL3 antibody

Description

UCHL3 antibody targets Ubiquitin C-terminal hydrolase L3, encoded by the UCHL3 gene. Ubiquitin C-terminal hydrolase L3 is a cytoplasmic deubiquitinating enzyme that functions within the ubiquitin-proteasome system to regulate ubiquitin availability and substrate modification dynamics. As a member of the ubiquitin C-terminal hydrolase family, it contributes to precise control of protein fate by trimming or removing ubiquitin from conjugated proteins.

Rather than acting on a single dedicated substrate, Ubiquitin C-terminal hydrolase L3 supports global ubiquitin system efficiency by maintaining pools of free ubiquitin required for continuous protein turnover. This activity is particularly important during periods of elevated proteasome demand, cellular stress, or rapid signaling turnover. A UCHL3 antibody enables investigation of deubiquitination processes that underpin protein quality control and signaling regulation.

UCHL3 is broadly expressed in mammalian cells and localizes predominantly to the cytoplasm, where it can access ubiquitinated substrates associated with signaling complexes, metabolic enzymes, and structural proteins. Its distribution reflects a housekeeping role that supports many cellular pathways rather than a narrowly specialized biological function. Changes in UCHL3 activity can therefore influence multiple downstream processes simultaneously through effects on ubiquitin availability.

In disease-related research, Ubiquitin C-terminal hydrolase L3 has been examined in contexts where ubiquitin balance is disrupted, including cancer and cellular stress response models. Aberrant deubiquitination can lead to inappropriate stabilization or degradation of regulatory proteins, contributing to altered growth control and survival signaling. These observations make UCHL3 a useful target for studies exploring how ubiquitin system homeostasis affects disease-associated phenotypes.

At the molecular level, Ubiquitin C-terminal hydrolase L3 contains a conserved catalytic core typical of thiol-dependent deubiquitinating enzymes. Its enzymatic behavior in experimental systems may vary with substrate engagement and cellular conditions, influencing apparent activity without altering protein structure. UCHL3 antibody reagents support research into ubiquitin pathway regulation and proteostasis, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Titration of the UCHL3 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 195-225 from the human protein was used as the immunogen for this UCHL3 antibody.

Storage

Aliquot the UCHL3 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.