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UCHL3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2127b

Specification

UCHL3 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P15374
Other Accession	P58321, Q91Y78, Q06AB3, Q9JKB1, Q2TBG8
Reactivity	**Human**
Predicted	**Bovine, Mouse, Pig, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**195-225**

UCHL3 Antibody (C-term) - Additional Information

Gene ID 7347

Other Names
Ubiquitin carboxyl-terminal hydrolase isozyme L3, UCH-L3, Ubiquitin thioesterase L3, UCHL3

Target/Specificity
This UCHL3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 195-225 amino acids from the C-terminal region of human UCHL3.

Dilution
WB~~1:1000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
UCHL3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

UCHL3 Antibody (C-term) - Protein Information

Name UCHL3

Function Deubiquitinating enzyme (DUB) that controls levels of cellular ubiquitin through

processing of ubiquitin precursors and ubiquitinated proteins. Thiol protease that recognizes and hydrolyzes a peptide bond at the C-terminal glycine of either ubiquitin or NEDD8. Has a 10-fold preference for Arg and Lys at position P3'', and exhibits a preference towards 'Lys-48'-linked ubiquitin chains. Deubiquitinates ENAC in apical compartments, thereby regulating apical membrane recycling. Indirectly increases the phosphorylation of IGFIR, AKT and FOXO1 and promotes insulin-signaling and insulin-induced adipogenesis. Required for stress-response retinal, skeletal muscle and germ cell maintenance. May be involved in working memory. Can hydrolyze UBB(+1), a mutated form of ubiquitin which is not effectively degraded by the proteasome and is associated with neurogenerative disorders.

Cellular Location
Cytoplasm.

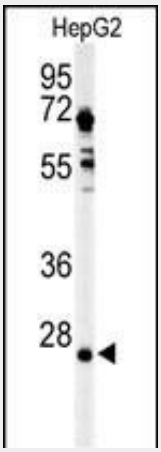
Tissue Location
Highly expressed in heart, skeletal muscle, and testis.

UCHL3 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

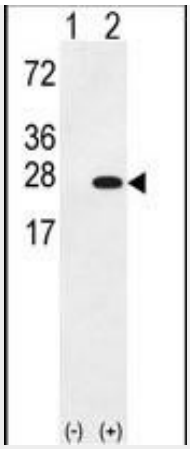
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

UCHL3 Antibody (C-term) - Images

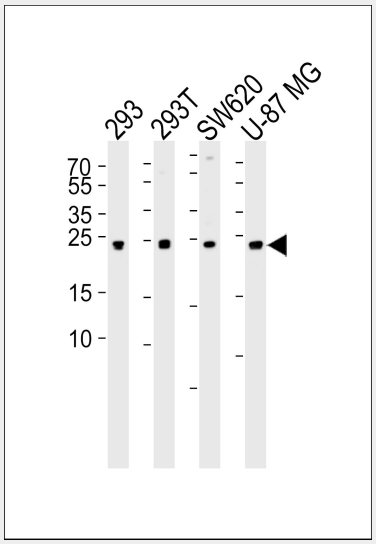


Western blot analysis of UCHL3 (Cat. #AP2127b) in HepG2 cell line lysates (35ug/lane). UCHL3 (arrow) was detected using the purified Pab.

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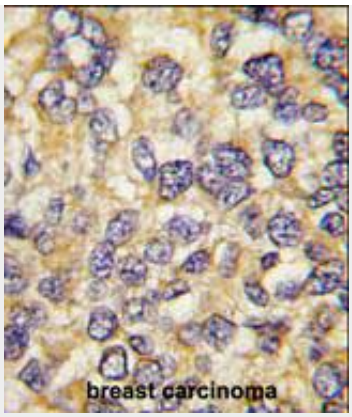
Western blot analysis of his tag antibody in UCHL3 gene transfected 293 lysates (35ug/lane). His-tag UCHL3 protein (arrow) is detected.



Western blot analysis of lysates from 293, 293T, SW620, U-87 MG cell line (from left to right), using UCHL3 Antibody (C209) (Cat. #AP2127B). AP2127B was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Formalin-fixed and paraffin-embedded human skeletal muscle tissue reacted with UCHL3 Antibody (C-term)(Cat.#AP2127b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with UCHL3 antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

UCHL3 Antibody (C-term) - Background

Covalent attachment of the C-terminus of ubiquitin to cellular proteins plays a role in a variety of cellular processes. Ubiquitin C-terminal hydrolysis is catalyzed by deubiquitinating (DUB) enzymes and is necessary for several functions, including liberation of monomeric ubiquitin from the precursors encoded by ubiquitin genes and recycling of ubiquitin monomers. There are 2 distinct families of DUBs, ubiquitin-specific proteases (UBPs) and ubiquitin C-terminal hydrolases (UCHs). Mayer and Wilkinson (1989) identified 4 distinct UCH activities from bovine thymus. All 4 were thiol proteases and had high-affinity binding sites for ubiquitin. Wilkinson et al. (1989) purified the predominant isozyme, UCHL3, and raised antibodies against it. By screening a human B-cell expression library with the antibodies, the authors isolated cDNAs encoding human UCHL3. Sequence comparisons revealed that the sequence of the predicted 230-amino acid human UCHL3 protein is 54% identical to that of UCHL1.

UCHL3 Antibody (C-term) - References

Saito, S., et al., J. Hum. Genet. 48(5):249-270 (2003). Wilkinson, K.D., et al., Science 246(4930):670-673 (1989).

UCHL3 Antibody (C-term) - Citations

- Ubiquitin C-terminal hydrolase-L1 protects cystic fibrosis transmembrane conductance regulator from early stages of proteasomal degradation.
- Role of UCH-L1/ubiquitin in acute testicular ischemia-reperfusion injury.