

USP16 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2144a**Specification**

USP16 Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q9Y5T5
Other Accession	Q4R6X7 , Q08DA3 , Q5VKN8
Reactivity	Human
Predicted	Bovine, Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1-30

USP16 Antibody (N-term) - Additional Information**Gene ID** 10600**Other Names**

Ubiquitin carboxyl-terminal hydrolase 16 {ECO:0000255|HAMAP-Rule:MF_03062}, 341912
{ECO:0000255|HAMAP-Rule:MF_03062}, Deubiquitinating enzyme 16
{ECO:0000255|HAMAP-Rule:MF_03062}, Ubiquitin thioesterase 16
{ECO:0000255|HAMAP-Rule:MF_03062}, Ubiquitin-processing protease UBP-M,
Ubiquitin-specific-processing protease 16 {ECO:0000255|HAMAP-Rule:MF_03062}, USP16
{ECO:0000255|HAMAP-Rule:MF_03062}

Target/Specificity

This USP16 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human USP16.

Dilution

WB~~1:1000
IHC-P~~1:50~100
E~~Use at an assay dependent concentration.

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

USP16 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

USP16 Antibody (N-term) - Protein Information

Name USP16 {ECO:0000255|HAMAP-Rule:MF_03062}

Function Specifically deubiquitinates 'Lys-120' of histone H2A (H2AK119Ub), a specific tag for epigenetic transcriptional repression, thereby acting as a coactivator (PubMed:[17914355](#)). Deubiquitination of histone H2A is a prerequisite for subsequent phosphorylation at 'Ser- 11' of histone H3 (H3S10ph), and is required for chromosome segregation when cells enter into mitosis (PubMed:[17914355](#)). In resting B- and T- lymphocytes, phosphorylation by AURKB leads to enhance its activity, thereby maintaining transcription in resting lymphocytes. Regulates Hox gene expression via histone H2A deubiquitination (PubMed:[17914355](#)). Prefers nucleosomal substrates (PubMed:[17914355](#)). Does not deubiquitinate histone H2B (PubMed:[17914355](#)). Also deubiquitinates non- histone proteins, such as ribosomal protein RPS27A: deubiquitination of monoubiquitinated RPS27A promotes maturation of the 40S ribosomal subunit (PubMed:[32129764](#)). Also mediates deubiquitination of tektin proteins (TEKT1, TEKT2, TEK3, TEKT4 and TEKT5), promoting their stability.

Cellular Location

Nucleus. Cytoplasm

Tissue Location

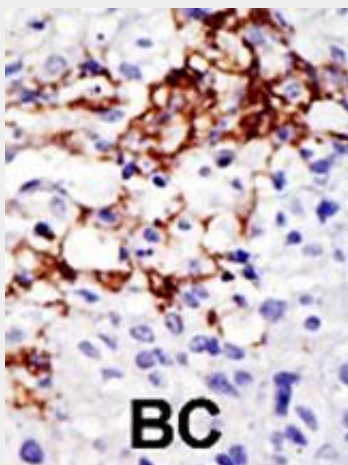
Present in all the tissues examined including fetal brain, lung, liver, kidney, and adult heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas

USP16 Antibody (N-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 Cytometry](#)
- [Cell Culture](#)

USP16 Antibody (N-term) - Images



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, 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. BC = breast carcinoma; HC = hepatocarcinoma.

USP16 Antibody (N-term) - Background

Modification of target proteins by ubiquitin participates in a wide array of biological functions. Proteins destined for degradation or processing via the 26 S proteasome are coupled to multiple copies of ubiquitin. However, attachment of ubiquitin or ubiquitin-related molecules may also result in changes in subcellular distribution or modification of protein activity. An additional level of ubiquitin regulation, deubiquitination, is catalyzed by proteases called deubiquitinating enzymes, which fall into four distinct families. Ubiquitin C-terminal hydrolases, ubiquitin-specific processing proteases (USPs),¹ OTU-domain ubiquitin-aldehyde-binding proteins, and Jab1/Pad1/MPN-domain-containing metallo-enzymes. Among these four families, USPs represent the most widespread and represented deubiquitinating enzymes across evolution. USPs tend to release ubiquitin from a conjugated protein. They display similar catalytic domains containing conserved Cys and His boxes but divergent N-terminal and occasionally C-terminal extensions, which are thought to function in substrate recognition, subcellular localization, and protein-protein interactions.

USP16 Antibody (N-term) - References

Puente, X.S., et al., Nat. Rev. Genet. 4(7):544-558 (2003).
Cai, S.Y., et al., Proc. Natl. Acad. Sci. U.S.A. 96(6):2828-2833 (1999).
D'Andrea, A., et al., Crit. Rev. Biochem. Mol. Biol. 33(5):337-352 (1998).