

**USP5 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2134a****Specification**

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**USP5 Antibody (N-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">P45974</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	59-90

**USP5 Antibody (N-term) - Additional Information****Gene ID** 8078**Other Names**

Ubiquitin carboxyl-terminal hydrolase 5, Deubiquitinating enzyme 5, Isopeptidase T, Ubiquitin thioesterase 5, Ubiquitin-specific-processing protease 5, USP5, ISOT

**Target/Specificity**

This USP5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 59-90 amino acids from the N-terminal region of human USP5.

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100

**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**

USP5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**USP5 Antibody (N-term) - Protein Information****Name** USP5**Synonyms** ISOT

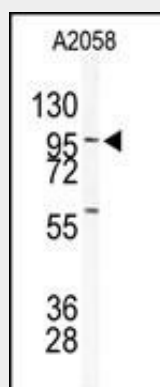
**Function** Cleaves linear and branched multiubiquitin polymers with a marked preference for branched polymers. Involved in unanchored 'Lys- 48'-linked polyubiquitin disassembly. Binds linear and 'Lys-63'-linked polyubiquitin with a lower affinity. Knock-down of USP5 causes the accumulation of p53/TP53 and an increase in p53/TP53 transcriptional activity because the unanchored polyubiquitin that accumulates is able to compete with ubiquitinated p53/TP53 but not with MDM2 for proteasomal recognition.

### USP5 Antibody (N-term) - Protocols

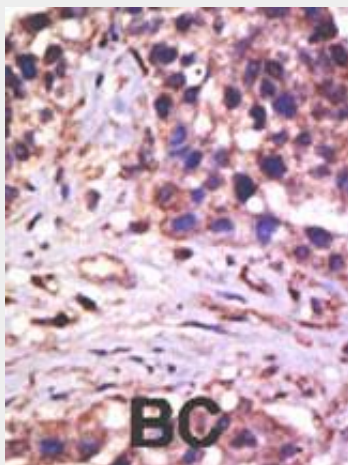
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### USP5 Antibody (N-term) - Images



Western blot analysis of anti-USP5 Antibody (N-term)(Cat.#AP2134a) in A2058 cell line lysates (35ug/lane). USP5(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data

demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

#### **USP5 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),<sup>1</sup> 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.

#### **USP5 Antibody (N-term) - References**

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).  
Ansari-Lari, M.A., et al., Genome Res. 6(4):314-326 (1996).  
Falquet, L., et al., FEBS Lett. 376(3):233-237 (1995).  
Falquet, L., et al., FEBS Lett. 359(1):73-77 (1995).

#### **USP5 Antibody (N-term) - Citations**

- [Protein aggregates are recruited to aggresome by histone deacetylase 6 via unanchored ubiquitin C termini.](#)