

### USP21 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP1069a

### Specification

# USP21 Antibody (N-term) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Antigen Region IHC-P, WB,E <u>O9UK80</u> <u>B2GUX4</u>, <u>O9OZL6</u>, <u>O2KJ72</u> Human Bovine, Mouse, Rat Rabbit Polyclonal Rabbit IgG 1-30

### USP21 Antibody (N-term) - Additional Information

Gene ID 27005

**Other Names** 

Ubiquitin carboxyl-terminal hydrolase 21, Deubiquitinating enzyme 21, Ubiquitin thioesterase 21, Ubiquitin-specific-processing protease 21, USP21, USP23

#### Target/Specificity

This USP21 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human USP21.

**Dilution** IHC-P~~1:50~100 WB~~1:2000 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

USP21 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## **USP21** Antibody (N-term) - Protein Information

Name USP21 {ECO:0000303|PubMed:10799498, ECO:0000312|HGNC:HGNC:12620}



**Function** Deubiquitinates histone H2A, a specific tag for epigenetic transcriptional repression, thereby acting as a coactivator (By similarity). Deubiquitination of histone H2A releaves the repression of di- and trimethylation of histone H3 at 'Lys-4', resulting in regulation of transcriptional initiation (By similarity). Regulates gene expression via histone H2A deubiquitination (By similarity). Deubiquitinates BAZ2A/TIP5 leading to its stabilization (PubMed:<u>26100909</u>). Also capable of removing NEDD8 from NEDD8 conjugates but has no effect on Sentrin-1 conjugates (PubMed:<u>10799498</u>). Also acts as a negative regulator of the ribosome quality control (RQC) by mediating deubiquitination of 40S ribosomal proteins RPS10/eS10 and RPS20/uS10, thereby antagonizing ZNF598-mediated 40S ubiquitination (PubMed:<u>32011234</u>).

**Cellular Location** Cytoplasm. Nucleus

#### **Tissue Location**

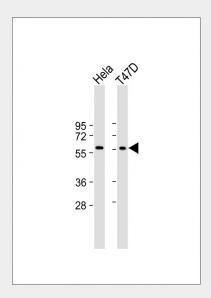
Highly expressed in heart, pancreas and skeletal muscle. Also expressed in brain, placenta, liver and kidney, and at very low level in lung.

### **USP21** Antibody (N-term) - Protocols

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

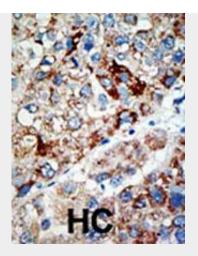
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

# USP21 Antibody (N-term) - Images



All lanes : Anti-hUSP21-M1 at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: T47D whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 63 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





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.

### USP21 Antibody (N-term) - Background

USP21 is a ubiquitin-specific protease, an enzyme that removes ubiquitin from ubiquitinated proteins. The encoded protein belongs to the C19 peptidase family, also known as family 2 of ubiquitin carboxyl-terminal hydrolases. This protein has been reported to be capable of removing NEDD8 from NEDD8 conjugates.

### USP21 Antibody (N-term) - References

Puente, X.S., et al., Nat. Rev. Genet. 4(7):544-558 (2003). Gong, L., et al., J. Biol. Chem. 275(19):14212-14216 (2000). Hillier, L.D., et al., Genome Res. 6(9):807-828 (1996). Smith, T.S., et al., Biochim. Biophys. Acta 1490 (1-2), 184-188 (2000). USP21 Antibody (N-term) - Citations

- Porcine circovirus type 2 infection attenuates the K63-linked ubiquitination of STING to inhibit IFN-β induction via p38-MAPK pathway
- Deubiquitination and stabilization of IL-33 by USP21.
- Identification of the E3 deubiquitinase ubiquitin-specific peptidase 21 (USP21) as a positive regulator of the transcription factor GATA3.