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USP3 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58245

Specification

USP3 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, E**
Primary Accession	Q9Y6I4
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**59 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human USP3**
Epitope Specificity	**31-130/520**
Isotype	**IgG**
Purity	
affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Nucleus. Localizes preferentially with monoubiquitinated H2A to chromatin.**
SIMILARITY	**Belongs to the peptidase C19 family. USP3 subfamily.Contains 1 UBP-type zinc finger.**
SUBUNIT	**Interacts (via UBP-type domain) with H2A; the interaction is less efficient than with monoubiquitinated H2A.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions
The ubiquitin (Ub) pathway involves three sequential enzymatic steps that facilitate the conjugation of Ub and Ub-like molecules to specific protein substrates. Through the use of a wide range of enzymes that can add or remove ubiquitin, the Ub pathway controls many intracellular processes such as signal transduction, transcriptional activation and cell cycle progression. USP3 (ubiquitin specific peptidase 3), also known as UBP or SIH003, is a 520 amino acid protein that contains one UBP-type zinc finger and belongs to the peptidase C19 family. Expressed ubiquitously with highest levels present in pancreas, USP3 catalyzes the conversion of a ubiquitin C-terminal thioester to a free ubiquitin and a thiol. The gene encoding USP3 maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome.

USP3 Polyclonal Antibody - Additional Information

Gene ID 9960

Other Names
Ubiquitin carboxyl-terminal hydrolase 3, 3.4.19.12, Deubiquitinating enzyme 3, Ubiquitin thioesterase 3, Ubiquitin-specific-processing protease 3, USP3

Target/Specificity
Expressed in all tissues examined, with strongest expression in pancreas.

Dilution
WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>E~~N/A

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

USP3 Polyclonal Antibody - Protein Information

Name USP3

Function
Deubiquitinase that plays a role in several cellular processes including transcriptional regulation, cell cycle progression or innate immunity. In response to DNA damage, deubiquitinates monoubiquitinated target proteins such as histone H2A and H2AX and thereby counteracts RNF168- and RNF8-mediated ubiquitination. In turn, participates in the recruitment of DNA damage repair factors to DNA break sites (PubMed:24196443). Required for proper progression through S phase and subsequent mitotic entry (PubMed:17980597). Acts as a positive regulator of TP53 by deubiquitinating and stabilizing it to promote normal cell proliferation and transformation (PubMed:28807825). Participates in establishing tolerance innate immune memory through non-transcriptional feedback. Mechanistically, negatively regulates TLR-induced NF-kappa-B signaling by targeting and removing the 'Lys- 63'-linked polyubiquitin chains on MYD88 (PubMed:37971847). Negatively regulates the activation of type I interferon signaling by mediating 'Lys-63'-linked polyubiquitin chains on RIGI and IFIH1 (PubMed:24366338). Also deubiquinates ASC/PYCARD, the central adapter mediating the assembly and activation of most inflammasomes, and thereby promotes inflammasome activation (PubMed:36050480).

Cellular Location
Nucleus. Cytoplasm. Note=Localizes preferentially with monoubiquitinated H2A to chromatin (PubMed:17980597). Upon NF-kappa-B signaling activation, exits the nucleus (PubMed:37971847)

Tissue Location
Expressed in all tissues examined, with strongest expression in pancreas

USP3 Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot

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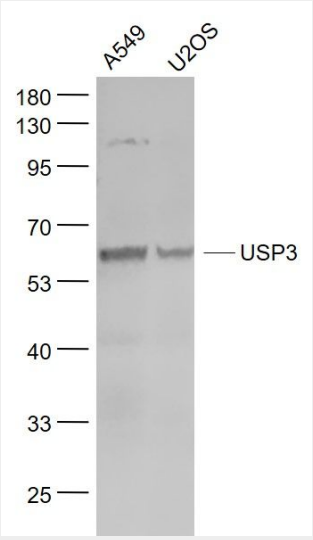
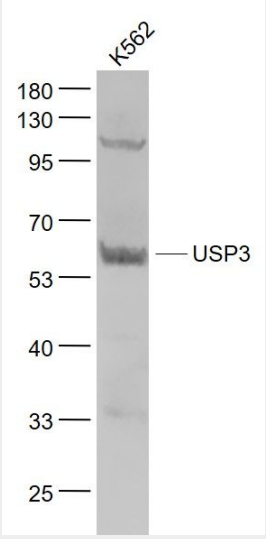
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

USP3 Polyclonal Antibody - Images



Sample:
A549(Human) Cell Lysate at 30 ug
U2OS(Human) Cell Lysate at 30 ug
Primary: Anti- USP3 (bs-4806R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 59 kD
Observed band size: 59 kD



Sample:
K562(Human) Cell Lysate at 30 ug
Primary: Anti- USP3 (bs-4806R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

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Predicted band size: 59 kD
Observed band size: 59 kD