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USP3 Rabbit pAb

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Catalog # AP58245

Product Information

Application	WB
Primary Accession	Q9Y6I4
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58897
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.
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.

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
Dilution	WB=1:500-2000
Storage	Store at -20 °C 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 °C.

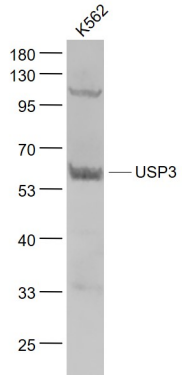
Protein Information

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 deubiquitinates 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

Background

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Images



Sample:
K562(Human) Cell Lysate at 30 ug
Primary: Anti- USP3 (AP58245) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 59 kD
Observed band size: 59 kD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.