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USP51 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20473c

Product Information

Application	WB, IF, E
Primary Accession	Q70EK9
Reactivity	Human, Rat, Mouse
Predicted	Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	79756
Antigen Region	278-307

Additional Information

Gene ID	158880
Other Names	Ubiquitin carboxyl-terminal hydrolase 51, Deubiquitinating enzyme 51, Ubiquitin thioesterase 51, Ubiquitin-specific-processing protease 51, USP51
Target/Specificity	This USP51 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 278-307 amino acids from the Central region of human USP51.
Dilution	WB~~1:1000 IF~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	USP51 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

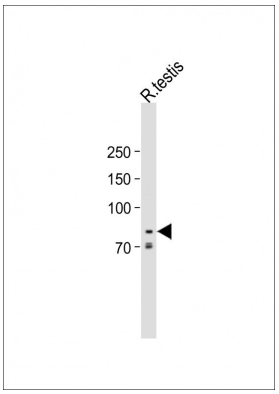
Name	USP51 (HGNC:23086)
Function	Specifically deubiquitinates 'Lys-14' (H2AK13Ub) and 'Lys- 16'(H2AK15Ub) of histone H2A regulating the DNA damage response at double-strand breaks (DSBs) (PubMed:27083998, PubMed:33022275). USP51 is recruited to chromatin after DNA damage and regulates the dynamic

	assembly/disassembly of TP53BP1 and BRCA1. Functions in DNA double-strand break repair also by mediating the deubiquitination and subsequent stabilization of DGCR8, leading to the recruitment of DGCR8 binding partners to double strand breaks such as RNF168 or MDC1 (PubMed:34188037). In addition, promotes the deubiquitination and stabilization of the transcriptional repressor ZEB1 (PubMed:29119051).
Cellular Location	Chromosome. Note=Upon DNA damage, chromatin-bound USP51 disassociates from chromatin immediately following DNA damage and reassociates with chromatin following DNA repair
Tissue Location	Expressed in prostate, brain, lung, aorta and kidney.

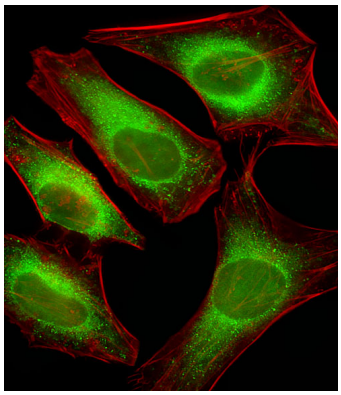
References

Quesada V., et al. Biochem. Biophys. Res. Commun. 314:54-62(2004).
Ross M.T., et al. Nature 434:325-337(2005).
Puente X.S., et al. Genome Res. 14:609-622(2004).

Images



All lanes : Anti-USP51 Antibody (Center) at 1:1000 dilution Lane 1 : Rat testis lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 80kDa Blocking/Dilution buffer : 5% NFDM/TBST.



Fluorescent image of Hela cells stained with USP51 Antibody (Center)(Cat#AP20473C). AP20473C was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).

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