10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

USP11 Antibody (N-term N20)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2139a

Product Information

Application	WB, IHC-P, E
Primary Accession	P51784
Other Accession	NP_004642
Reactivity	Human
Predicted	Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB4293/4294
Calculated MW	109817
Antigen Region	279-308

Additional Information

Other Names	Ubiquitin carboxyl-terminal hydrolase 11, Deubiquitinating enzyme 11, Ubiquitin thioesterase 11, Ubiquitin-specific-processing protease 11, USP11, UHX1
Target/Specificity	This USP11 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 279-308 amino acids from the N-terminal region of human USP11.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	USP11 Antibody (N-term N20) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	USP11
Synonyms	UHX1
Function	Protease that can remove conjugated ubiquitin from target proteins and

	polyubiquitin chains (PubMed:12084015, PubMed:15314155, PubMed:17897950, PubMed:19874889, PubMed:20233726, PubMed:24724799, PubMed:28992046). Inhibits the degradation of target proteins by the proteasome (PubMed:12084015). Cleaves preferentially 'Lys-6' and 'Lys- 63'-linked ubiquitin chains. Has lower activity with 'Lys-11' and 'Lys-33'-linked ubiquitin chains, and extremely low activity with 'Lys-27', 'Lys-29' and 'Lys-48'-linked ubiquitin chains (in vitro) (PubMed:24724799). Plays a role in the regulation of pathways leading to NF-kappa-B activation (PubMed:17897950, PubMed:19874889). Plays a role in the regulation of DNA repair after double-stranded DNA breaks (PubMed:15314155, PubMed:20233726). Acts as a chromatin regulator via its association with the Polycomb group (PcG) multiprotein PRC1-like complex; may act by deubiquitinating components of the PRC1-like complex (PubMed:20601937). Promotes cell proliferation by deubiquitinating phosphorylated E2F1 (PubMed:28992046).
Cellular Location	Nucleus. Cytoplasm. Chromosome. Note=Predominantly nuclear (PubMed:12084015, PubMed:15314155). Associates with chromatin (PubMed:20233726, PubMed:20601937).

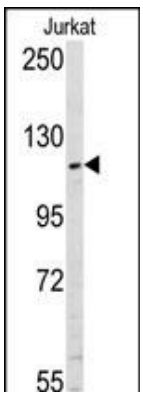
Background

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),1 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.

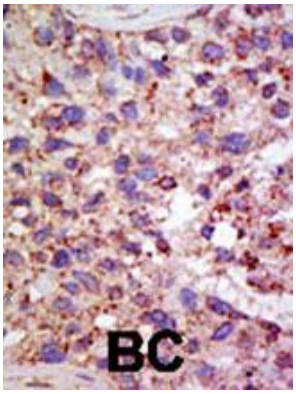
References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).
Swanson, D.A., et al., Hum. Mol. Genet. 5(4):533-538 (1996).
Ideguchi, H., et al., Biochem. J. 367 (Pt 1), 87-95 (2002).

Images



Western blot analysis of anti-USP11 Pab (Cat. #AP2139a) in Jurkat cell line lysates (35ug/lane). USP11(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.

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