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USP16 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16746a

Product Information

Application	WB, E
Primary Accession	Q9Y5T5
Other Accession	Q4R6X7, NP_001001992.1, NP_001027582.1
Reactivity	Human
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36395
Calculated MW	93570
Antigen Region	132-160

Additional Information

Gene ID	10600
Other Names	Ubiquitin carboxyl-terminal hydrolase 16 {ECO:0000255|HAMAP-Rule:MF_03062}, 341912 {ECO:0000255|HAMAP-Rule:MF_03062}, Deubiquitinating enzyme 16 {ECO:0000255|HAMAP-Rule:MF_03062}, Ubiquitin thioesterase 16 {ECO:0000255|HAMAP-Rule:MF_03062}, Ubiquitin-processing protease UBP-M, Ubiquitin-specific-processing protease 16 {ECO:0000255|HAMAP-Rule:MF_03062}, USP16 {ECO:0000255|HAMAP-Rule:MF_03062}
Target/Specificity	This USP16 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 132-160 amino acids from the N-terminal region of human USP16.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	USP16 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	USP16 {ECO:0000255|HAMAP-Rule:MF_03062}
Function	Specifically deubiquitinates 'Lys-120' of histone H2A (H2AK119Ub), a specific tag for epigenetic transcriptional repression, thereby acting as a coactivator (PubMed:17914355). Deubiquitination of histone H2A is a prerequisite for subsequent phosphorylation at 'Ser- 11' of histone H3 (H3S10ph), and is required for chromosome segregation when cells enter into mitosis (PubMed:17914355). In resting B- and T- lymphocytes, phosphorylation by AURKB leads to enhance its activity, thereby maintaining transcription in resting lymphocytes. Regulates Hox gene expression via histone H2A deubiquitination (PubMed:17914355). Prefers nucleosomal substrates (PubMed:17914355). Does not deubiquitinate histone H2B (PubMed:17914355). Also deubiquitinates non- histone proteins, such as ribosomal protein RPS27A: deubiquitination of monoubiquitinated RPS27A promotes maturation of the 40S ribosomal subunit (PubMed:32129764). Also mediates deubiquitination of tektin proteins (TEKT1, TEKT2, TEK3, TEKT4 and TEKT5), promoting their stability.
Cellular Location	Nucleus. Cytoplasm
Tissue Location	Present in all the tissues examined including fetal brain, lung, liver, kidney, and adult heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas

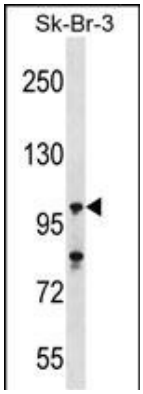
Background

This gene encodes a deubiquitinating enzyme that is phosphorylated at the onset of mitosis and then dephosphorylated at the metaphase/anaphase transition. It can deubiquitinate H2A, one of two major ubiquitinated proteins of chromatin, in vitro and a mutant form of the protein was shown to block cell division. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

References

Gelsi-Boyer, V., et al. BMC Cancer 8, 299 (2008) :
Joo, H.Y., et al. Nature 449(7165):1068-1072(2007)
Pai, M.T., et al. J. Mol. Biol. 370(2):290-302(2007)
Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)
Beausoleil, S.A., et al. Proc. Natl. Acad. Sci. U.S.A. 101(33):12130-12135(2004)

Images



USP16 Antibody (N-term) (Cat. #AP16746a) western blot analysis in SK-BR-3 cell line lysates (35ug/lane).This demonstrates the USP16 antibody detected the USP16 protein (arrow).