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USP16 Polyclonal Antibody

Catalog # AP73014

Product Information

Application	WB
Primary Accession	Q9Y5T5
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	93570

Additional Information

Gene ID	10600
Other Names	USP16; MSTP039; Ubiquitin carboxyl-terminal hydrolase 16; Deubiquitinating enzyme 16; Ubiquitin thioesterase 16; Ubiquitin-processing protease UBP-M; Ubiquitin-specific-processing protease 16
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

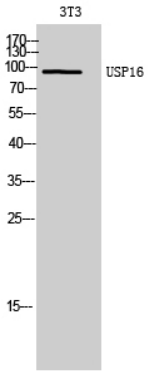
Name	USP16 {ECO:0000255|HAMAP-Rule:MF_03062}
Function	Specifically deubiquitinates 'Lys-120' of histone H2A (H2AK119Ub), a specific tag for epigenetic transcriptional repression, thereby acting as a coactivator (PubMed:17914355). Deubiquitination of histone H2A is a prerequisite for subsequent phosphorylation 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

Specifically deubiquitinates 'Lys-120' of histone H2A (H2AK119Ub), a specific tag for epigenetic transcriptional repression, thereby acting as a coactivator. 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. 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. Prefers nucleosomal substrates. Does not deubiquitinate histone H2B.

Images



Western Blot analysis of 3T3 cells using USP16 Polyclonal Antibody. Secondary antibody was diluted at 1:20000