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SUMO Conjugating Enzyme UBC9 Rabbit mAb

Catalog # AP76755

Product Information

Application	WB, IHC-P, IHC-F, FC, IP
Primary Accession	P63279
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	18007

Additional Information

Gene ID	7329
Other Names	UBE2I
Dilution	WB~~1:1000 IHC-P~~N/A IHC-F~~N/A FC~~1:10~50 IP~~N/A
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	UBE2I
Synonyms	UBC9, UBCE9
Function	Accepts the ubiquitin-like proteins SUMO1, SUMO2, SUMO3, SUMO4 and SUMO1P1/SUMO5 from the UBLE1A-UBLE1B E1 complex and catalyzes their covalent attachment to other proteins with the help of an E3 ligase such as RANBP2, CBX4 and ZNF451. Can catalyze the formation of poly-SUMO chains. Necessary for sumoylation of FOXL2 and KAT5. Essential for nuclear architecture and chromosome segregation. Sumoylates p53/TP53 at 'Lys-386'. Mediates sumoylation of ERCC6 which is essential for its transcription-coupled nucleotide excision repair activity (PubMed:26620705). Sumoylates SHMT1 at 'Lys-38' or 'Lys-39' leading to RAN-dependent nuclear import of SHMT1 (PubMed:17446168). Also sumoylates TYMS and DHFR (PubMed:18067453).
Cellular Location	Nucleus. Cytoplasm Cytoplasm, perinuclear region Note=Mainly nuclear (By

	similarity). In spermatocytes, localizes in synaptonemal complexes (PubMed:8610150). Recruited by BCL11A into the nuclear body (By similarity). {ECO:0000250|UniProtKB:P63280, ECO:0000269|PubMed:8610150}
Tissue Location	Expressed in heart, skeletal muscle, pancreas, kidney, liver, lung, placenta and brain. Also expressed in testis and thymus.

Background

The process of SUMO-1 conjugation is similar to that seen with ubiquitin and other forms of post-translational protein modification. Like ubiquitin, SUMO-1 is conjugated to its target protein by the coordinated action of ubiquitin conjugation enzymes E1, E2 and E3. Ubc9 (or ube2M) is a highly conserved, 158 amino acid protein that acts as a SUMO-1 conjugating enzyme. Ubc9 binds to target proteins through their SUMO-1-CS (consensus sequence) domains and interacts with SUMO via the structurally conserved amino-terminal domain.