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UBC9 (UBE2I) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1064a

Product Information

Application	WB, IHC-P, E
Primary Accession	P63279
Other Accession	P63282, P63281, P63280, P63283, Q9DDJ0, Q9W6H5
Reactivity	Human
Predicted	Zebrafish, Chicken, Mouse, Rat, Xenopus, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	18007
Antigen Region	1-30

Additional Information

Gene ID	7329
Other Names	SUMO-conjugating enzyme UBC9, 632-, SUMO-protein ligase, Ubiquitin carrier protein 9, Ubiquitin carrier protein I, Ubiquitin-conjugating enzyme E2 I, Ubiquitin-protein ligase I, p18, UBE2I, UBC9, UBCE9
Target/Specificity	This UBC9 (UBE2I) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human UBC9 (UBE2I).
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	UBC9 (UBE2I) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

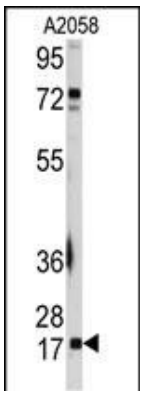
Background

UBE2I (Ubc9) is a member of the E2 family and is specific for the conjugation of SUMO to a variety of target proteins. SUMO conjugation to target proteins is mediated by a different, but analogous, pathway to ubiquitinylation. This E2 is unusual in that it interacts directly with protein substrates that are modified by sumoylation, and may play a role in substrate recognition. UBE2I can mediate the conjugation of SUMO-1 to a variety of proteins including RanGAP1, I?B?, and PML without the requirement of an E3 ligase. UBE2I is essential for nuclear architecture and chromosome segregation.

References

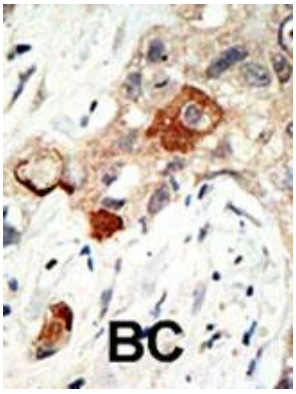
Biochem Biophys Res Commun. 2002 Aug 30;296(4):870-6.
Genomics. 1996 Oct 15;37(2):183-6.
Cytogenet Cell Genet. 1996;75(4):222-3.
Cytogenet Cell Genet. 1996;72(1):86-9.

Images

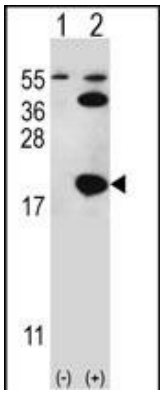


Western blot analysis of anti-UBE2I Antibody (N-term) (Cat.#AP1064a) in A2058 cell line lysates (35ug/lane). UBE2I(arrow) was detected using the purified Pab.

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.



Western blot analysis of UBE2I (arrow) using rabbit polyclonal UBE2I Antibody (S7) (Cat.#AP1064a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the UBE2I gene.

Citations

- UBC9-dependent association between calnexin and protein tyrosine phosphatase 1B (PTP1B) at the endoplasmic reticulum.
- MDA5 is SUMOylated by PIAS2 ☞ in the upregulation of type I interferon signaling.

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