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UBE4B Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2111a

Product Information

Application	WB, IHC-P-Leica, E
Primary Accession	O95155
Other Accession	Q9ES00
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB4133
Calculated MW	146185
Antigen Region	112-142

Additional Information

Gene ID	10277
Other Names	Ubiquitin conjugation factor E4 B, 632-, UBE4B (HGNC:12500)
Target/Specificity	This UBE4B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 112-142 amino acids from the N-terminal region of human UBE4B.
Dilution	WB~~1:1000 IHC-P-Leica~~1:500 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	UBE4B Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UBE4B (HGNC:12500)
Function	Acts as an E3 ubiquitin ligase and E4 ubiquitin chain elongation enzyme specifically involved in polyubiquitin chain assembly (PubMed:21317885).

	Plays an essential role in cardiac development and in the protection of neurons from degeneration evoked by ER stress (By similarity). Is recruited to early endosomes via interaction with the ESCRT-0 component HGS, where it ubiquitinates membrane protein cargo such as EGFR and APP to promote their sorting into multivesicular bodies and subsequent lysosomal degradation (PubMed:24344129, PubMed:32841720). Promotes MDM2-mediated polyubiquitination and subsequent degradation of the tumor suppressor TP53 (PubMed:21317885). May regulate myosin assembly in striated muscles together with STUB1 and VCP/p97 by targeting myosin chaperone UNC45B for proteasomal degradation (PubMed:17369820). Mediates the formation of 'Lys-11'- or 'Lys-48'-linked polyubiquitin chains on TRA2A and PYCR2 and induces their degradation by the proteasome (PubMed:35669517). Thereby regulates the alternative splicing function of TRA2A (PubMed:35669517). Also regulates the mTOR signaling pathway by polyubiquitinating KLHL22, an E3 ligase that degrades the GATOR1 complex protein DEPDC5 (By similarity). Under mitochondrial depolarization, mediates the ubiquitination of NIPSNAP1, thereby promoting its interaction with autophagy receptors NDP52 and p62/SQSTM1 and its subsequent degradation via the lysosome-dependent pathway (PubMed:41596759).
Cellular Location	Early endosome. Cytoplasm Nucleus {ECO:0000250|UniProtKB:Q9ES00}
Tissue Location	Expressed in differentiated myotubes (at protein level) (PubMed:17369820). Highest expression in ovary, testis, heart and skeletal muscle (PubMed:11802788). Expression is low in colon, thymus and peripheral blood leukocytes (PubMed:11802788). Almost undetectable in lung and spleen (PubMed:11802788)

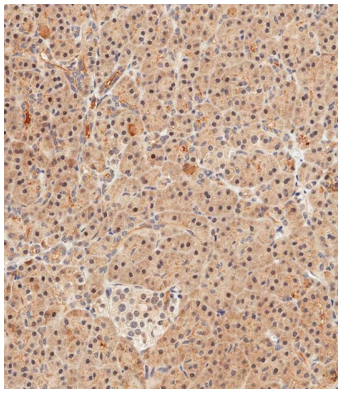
Background

The modification of proteins with ubiquitin is an important cellular mechanism for targeting abnormal or short-lived proteins for degradation. Ubiquitination involves at least three classes of enzymes: ubiquitin-activating enzymes, or E1s, ubiquitin-conjugating enzymes, or E2s, and ubiquitin-protein ligases, or E3s. UBE4B represents an additional conjugation factor, E4, which is involved in multiubiquitin chain assembly. UBE4B also the strongest candidate among the neuroblastoma tumor suppressors.

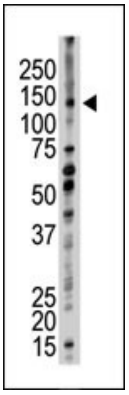
References

Ishikawa, K., et al., DNA Res. 5(3):169-176 (1998).
Mahoney, J.A., et al., Biochem. J. 361 (Pt 3), 587-595 (2002).

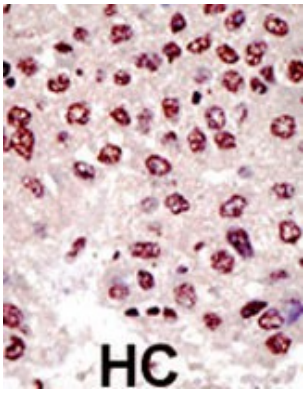
Images



Immunohistochemical analysis of paraffin-embedded human pancreas tissue using AP2111a performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



The anti-UBE4B Pab (Cat. #AP2111a) is used in Western blot to detect UBE4B in mouse kidney tissue lysate.



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'.