

# E1 Ubiquitin (UBE1) Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP2113b

## Product Information

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<b>Application</b>	WB, IHC-P, E
<b>Primary Accession</b>	<a href="#">P22314</a>
<b>Other Accession</b>	<a href="#">Q5U300</a> , <a href="#">Q29504</a> , <a href="#">Q02053</a> , <a href="#">A3KMV5</a>
<b>Reactivity</b>	Human, Mouse
<b>Predicted</b>	Rat, Rabbit, Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB04330
<b>Calculated MW</b>	117849
<b>Antigen Region</b>	1026-1058

## Additional Information

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<b>Gene ID</b>	7317
<b>Other Names</b>	Ubiquitin-like modifier-activating enzyme 1, Protein A1S9, Ubiquitin-activating enzyme E1, UBA1, A1S9T, UBE1
<b>Target/Specificity</b>	This E1 Ubiquitin (UBE1) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1026-1058 amino acids from the C-terminal region of human E1 Ubiquitin (UBE1).
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	E1 Ubiquitin (UBE1) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	UBA1
<b>Synonyms</b>	A1S9T, UBE1

<b>Function</b>	Catalyzes the first step in ubiquitin conjugation to mark cellular proteins for degradation through the ubiquitin-proteasome system (PubMed: <a href="#">1447181</a> , PubMed: <a href="#">1606621</a> , PubMed: <a href="#">33108101</a> ). Activates ubiquitin by first adenylating its C-terminal glycine residue with ATP, and thereafter linking this residue to the side chain of a cysteine residue in E1, yielding a ubiquitin-E1 thioester and free AMP (PubMed: <a href="#">1447181</a> ). Essential for the formation of radiation-induced foci, timely DNA repair and for response to replication stress. Promotes the recruitment of TP53BP1 and BRCA1 at DNA damage sites (PubMed: <a href="#">22456334</a> ).
<b>Cellular Location</b>	Cytoplasm. Mitochondrion. Nucleus [Isoform 2]: Cytoplasm
<b>Tissue Location</b>	Detected in erythrocytes (at protein level). Ubiquitous.

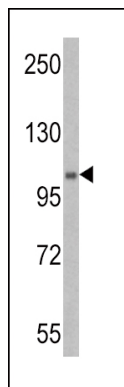
## Background

UBE1 catalyzes the first step in ubiquitin conjugation to mark cellular proteins for degradation. This gene complements an X-linked mouse temperature-sensitive defect in DNA synthesis, and thus may function in DNA repair. It is part of a gene cluster on chromosome Xp11.23. Alternative splicing results in 2 transcript variants encoding the same protein, but with different 5' UTR.

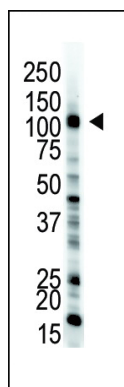
## References

Ayusawa, D., et al., Cell Struct. Funct. 17(2):113-122 (1992). Handley, P.M., et al., Proc. Natl. Acad. Sci. U.S.A. 88(1):258-262 (1991). Kudo, M., et al., Exp. Cell Res. 192(1):110-117 (1991). Zacksenhaus, E., et al., Cytogenet. Cell Genet. 53(1):20-22 (1990). Zacksenhaus, E., et al., EMBO J. 9(9):2923-2929 (1990).

## Images

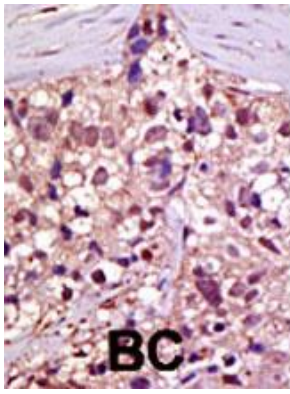


Western blot analysis of E1 Ubiquitin (UBE1) Antibody (C-term) (Cat. #AP2113b) in mouse stomach tissue lysates (35ug/lane). UBE1 (arrow) was detected using the purified Pab.

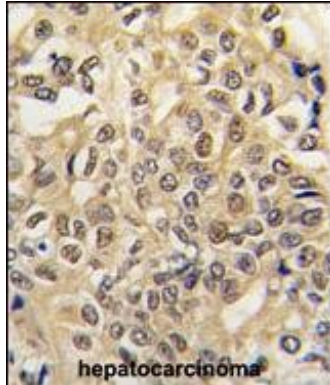


The anti-UBE1 Pab (Cat. #AP2113b) is used in Western blot to detect UBE1 in HL-60 cell lysate.

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.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with UBE1 antibody (C-term) (Cat.#AP2113b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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