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WEE1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8106B

Product Information

Application	IHC-P, WB, E
Primary Accession	P30291
Other Accession	Q63802, P47810
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3525
Calculated MW	71597
Antigen Region	604-634

Additional Information

Gene ID	7465
Other Names	Wee1-like protein kinase, WEE1hu, Wee1A kinase, WEE1
Target/Specificity	This WEE1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 604-634 amino acids from the C-terminal region of human WEE1.
Dilution	IHC-P~~1:100~500 WB~~1:1000 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	WEE1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	WEE1 {ECO:0000303|PubMed:8348613, ECO:0000312|HGNC:HGNC:12761}
Function	Acts as a negative regulator of entry into mitosis (G2 to M transition) by protecting the nucleus from cytoplasmically activated cyclin B1-complexed CDK1 before the onset of mitosis by mediating phosphorylation of CDK1 on

'Tyr-15' (PubMed:15070733, PubMed:7743995, PubMed:8348613, PubMed:8428596). Specifically phosphorylates and inactivates cyclin B1-complexed CDK1 reaching a maximum during G2 phase and a minimum as cells enter M phase (PubMed:7743995, PubMed:8348613, PubMed:8428596). Phosphorylation of cyclin B1-CDK1 occurs exclusively on 'Tyr-15' and phosphorylation of monomeric CDK1 does not occur (PubMed:7743995, PubMed:8348613, PubMed:8428596). Its activity increases during S and G2 phases and decreases at M phase when it is hyperphosphorylated (PubMed:7743995). A correlated decrease in protein level occurs at M/G1 phase, probably due to its degradation (PubMed:7743995).

Cellular Location Nucleus.

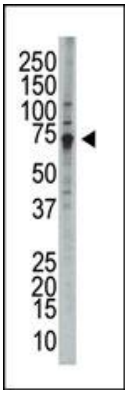
Background

WEE1 is a nuclear protein, which is a tyrosine kinase belonging to the Ser/Thr family of protein kinases. This protein catalyzes the inhibitory tyrosine phosphorylation of CDC2/cyclin B kinase, and appears to coordinate the transition between DNA replication and mitosis by protecting the nucleus from cytoplasmically activated CDC2 kinase.

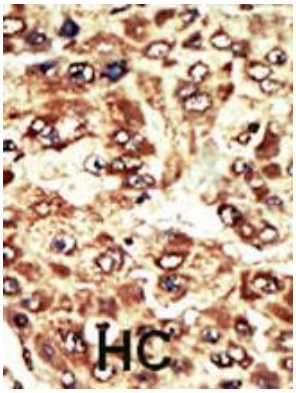
References

Kawasaki, H., et al., Oncogene 22(44):6839-6844 (2003).
Hashimoto, O., et al., Mol. Carcinog. 36(4):171-182 (2003).
Yuan, H., et al., J. Virol. 77(3):2063-2070 (2003).
Masaki, T., et al., Hepatology 37(3):534-543 (2003).
de Noronha, C.M., et al., Science 294(5544):1105-1108 (2001).

Images



Western blot analysis of anti-WEE1 Pab (Cat. #AP8106b) in HL-60 cell lysate. WEE1 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



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'.