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WEE1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5256

Product Information

Application	WB
Primary Accession	P30291
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	71597
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	7465
Antigen Region	144-173
Other Names	WEE1; Wee1-like protein kinase; Wee1A kinase
Dilution	WB~~ 1:1000
Target/Specificity	This WEE1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 144-173 amino acids from the Central region of human WEE1.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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 (Center) 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.

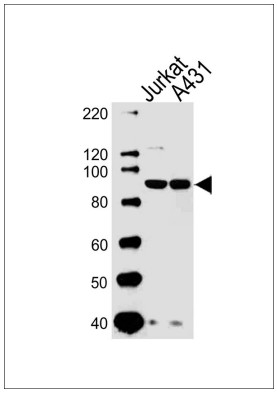
Background

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 lysates from Jurkat,A431 cell line (from left to right), using WEE1 Antibody (A159)(Cat. #AW5256). AW5256 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.