

WEE1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AW5256

Product Information

Application W	/B
Primary Accession P	<u>30291</u>
Reactivity H	uman
Host R	abbit
Clonality P	olyclonal
Calculated MW 7	1597
Isotype R	abbit IgG
Antigen Source H	UMAN

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: <u>15070733</u> , PubMed: <u>7743995</u> , PubMed: <u>8348613</u> ,

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

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.

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