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# Phospho-Wee1(S123) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3284a

## Product Information

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|---|---|
| **Application** | WB, DB, IHC-P, E |
| **Primary Accession** | P30291 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Bovine, Canine, Rabbit |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Calculated MW** | 71597 |

## Additional Information

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|---|---|
| **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 phosphopeptide corresponding to amino acid residues surrounding S123 of human Wee1. |
| **Dilution** | WB~~1:1000 DB~~1:500 IHC-P~~1:100~500 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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** | Phospho-Wee1(S123) Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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|---|---|
| **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.

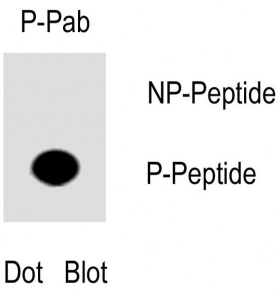
## Background

This gene encodes 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.

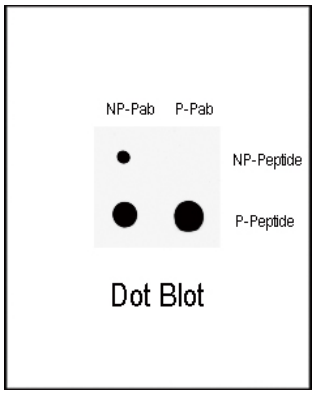
## References


Dai, X., et al., J. Invest. Dermatol. 122(6):1356-1364 (2004).
Watanabe, N., et al., Proc. Natl. Acad. Sci. U.S.A. 101(13):4419-4424 (2004).
Yoshida, T., et al., Ann. Oncol. 15(2):252-256 (2004).
Kawasaki, H., et al., Oncogene 22(44):6839-6844 (2003).
Yuan, H., et al., J. Virol. 77(3):2063-2070 (2003).


## Images

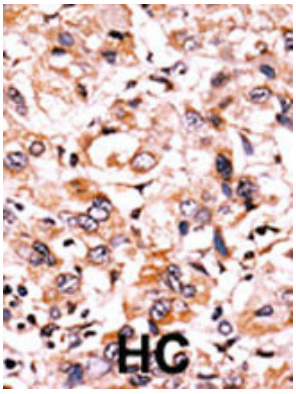



Dot blot analysis of Phospho-Wee1(S123) Antibody Phospho-specific Pab (Cat. AP3284a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antobodies working concentration was 0. 5ug per ml




Dot blot analysis of anti-Phospho-Wee1-S123 Antibody (Cat. #AP3284a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antobodies working concentration was 0.5ug per ml.

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

## Citations

- Persistence of the cell-cycle checkpoint kinase Wee1 in SadA- and SadB-deficient neurons disrupts neuronal polarity.

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