

# WEE1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP8106B

## **Specification**

# WEE1 Antibody (C-term) - Product Information

Application IHC-P, WB,E Primary Accession P30291

Other Accession <u>Q63802</u>, <u>P47810</u>

Reactivity
Predicted
Host
Clonality
Isotype
Antigen Region

Human
Mouse, Rat
Rabbit
Polyclonal
Rabbit IgG
604-634

## WEE1 Antibody (C-term) - 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~~1:50~100 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 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 (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

# WEE1 Antibody (C-term) - 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: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).

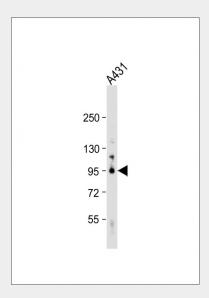
**Cellular Location** Nucleus.

# WEE1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

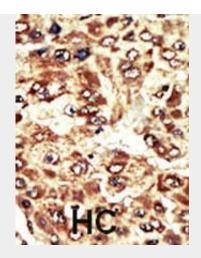
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# WEE1 Antibody (C-term) - Images



Anti-WEE1 Antibody (A619) at 1:1000 dilution + A431 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 72 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





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.

## WEE1 Antibody (C-term) - 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.

## WEE1 Antibody (C-term) - 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).