

**WEE1 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8106c****Specification**

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**WEE1 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [P30291](#)**WEE1 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 7465**Other Names**

Wee1-like protein kinase, WEE1hu, Wee1A kinase, WEE1

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8106c](/product/products/AP8106c) was selected from the Center region of human WEE1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**WEE1 Antibody (Center) Blocking Peptide - 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:[7743995](http://www.uniprot.org/citations/7743995), PubMed:[8348613](http://www.uniprot.org/citations/8348613), PubMed:[8428596](http://www.uniprot.org/citations/8428596), PubMed:[15070733](http://www.uniprot.org/citations/15070733)). Specifically phosphorylates and inactivates cyclin B1-complexed CDK1 reaching a maximum during G2 phase and a minimum as cells enter M phase (PubMed:[7743995](http://www.uniprot.org/citations/7743995), PubMed:[8348613](http://www.uniprot.org/citations/8348613), PubMed:[8428596](http://www.uniprot.org/citations/8428596)).

Phosphorylation of cyclin B1-CDK1 occurs exclusively on 'Tyr-15' and phosphorylation of monomeric CDK1 does not occur (PubMed:<a href="http://www.uniprot.org/citations/7743995" target="\_blank">7743995</a>, PubMed:<a href="http://www.uniprot.org/citations/8348613" target="\_blank">8348613</a>, PubMed:<a href="http://www.uniprot.org/citations/8428596" target="\_blank">8428596</a>). Its activity increases during S and G2 phases and decreases at M phase when it is hyperphosphorylated (PubMed:<a href="http://www.uniprot.org/citations/7743995" target="\_blank">7743995</a>). A correlated decrease in protein level occurs at M/G1 phase, probably due to its degradation (PubMed:<a href="http://www.uniprot.org/citations/7743995" target="\_blank">7743995</a>).

#### **Cellular Location**

Nucleus.

#### **WEE1 Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

#### **WEE1 Antibody (Center) Blocking Peptide - Images**

#### **WEE1 Antibody (Center) Blocking Peptide - 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 (Center) Blocking Peptide - 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).