

**Phospho-Wee1(S53) Antibody Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP3285a****Specification**

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**Phospho-Wee1(S53) Antibody Blocking peptide - Product Information**Primary Accession [P30291](#)**Phospho-Wee1(S53) Antibody 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 [AP3285a](/product/products/AP3285a) was selected from the 46~60 region of human Phospho-Wee1-S53. 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.

**Phospho-Wee1(S53) Antibody 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:[15070733](http://www.uniprot.org/citations/15070733), PubMed:[7743995](http://www.uniprot.org/citations/7743995), PubMed:[8348613](http://www.uniprot.org/citations/8348613), PubMed:[8428596](http://www.uniprot.org/citations/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](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.

#### **Phospho-Wee1(S53) Antibody Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

#### **Phospho-Wee1(S53) Antibody Blocking peptide - Images**

#### **Phospho-Wee1(S53) Antibody Blocking peptide - 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.

#### **Phospho-Wee1(S53) Antibody Blocking peptide - 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).