

Product Name: Wee 1 (phospho Ser53) Rabbit Polyclonal Antibody
Catalog #: APRab05630

Summary

Production Name	Wee 1 (phospho Ser53) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC-P,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	WEE1
Alternative Names	WEE1; Wee1-like protein kinase; WEE1hu; Wee1A kinase
Gene ID	7465.0
SwissProt ID	P30291.The antiserum was produced against synthesized peptide derived from human WEE1 around the phosphorylation site of Ser53. AA range:19-68

Application

Dilution Ratio	IHC-P 1:100-1:300, ELISA 1:20000, IF-P/IF-F/ICC/IF 1:50-200
Molecular Weight	

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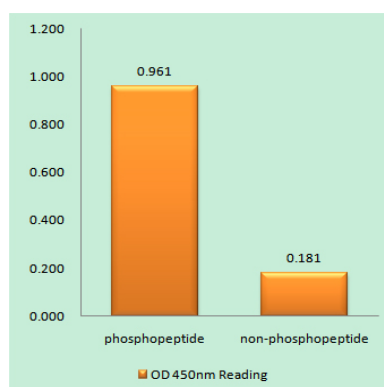
Background

WEE1 G2 checkpoint kinase(WEE1) Homo sapiens 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. [provided by RefSeq, Jul 2008],catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,cofactor:Binds 2 magnesium ions per subunit.,enzyme regulation:Synthesis is increased during S and G2 phases, presumably by an increase in transcription; activity is decreased by phosphorylation during m phase. Protein levels fall in M phase as a result of decreased synthesis combined with degradation. Activity seems to be negatively regulated by phosphorylation upon entry into mitosis, although N-terminal phosphorylation might also regulate the protein stability via protection from proteolysis or might regulate the subcellular location.,function:May act as a negative regulator of entry into mitosis (G2 to M transition) by protecting the nucleus from cytoplasmically activated cyclin B1-complexed CDC2 before the onset of mitosis. Its activity increases during S and G2 phases and decreases at M phase when it is hyperphosphorylated. A correlated decrease in protein level occurs at M/G1 phase, probably due to its degradation. Specifically phosphorylates and inactivates cyclin B1-complexed CDC2 reaching a maximum during G2 phase and a minimum as cells enter M phase. Phosphorylation of cyclin B1-CDC2 occurs exclusively on 'Tyr-15' and phosphorylation of monomeric CDC2 does not occur.,PTM:Phosphorylated during M and G1 phases. Also autophosphorylated.,PTM:Ubiquitinated and degraded at the onset of G2/M phase.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. WEE1 subfamily.,similarity:Contains 1 protein kinase domain.,

Research Area

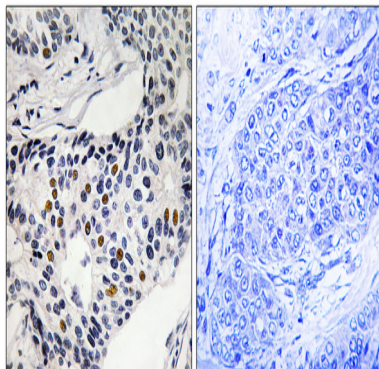
Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;

Image Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using WEE1 (Phospho-Ser53) Antibody

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Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using WEE1 (Phospho-Ser53) Antibody.
The picture on the right is blocked with the phospho peptide.

Note

For research use only.