

Product Name: Wee1 (phospho Ser642) Rabbit Polyclonal Antibody
Catalog #: APRab05631

Summary

Production Name	Wee1 (phospho Ser642) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	ELISA, WB,
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 Ser642. AA range: 597-646

Application

Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:5000. Not yet tested in other applications.
Molecular Weight	100kD

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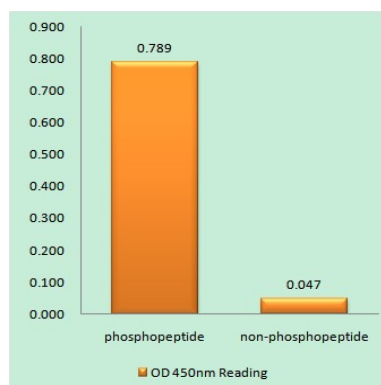
Background

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

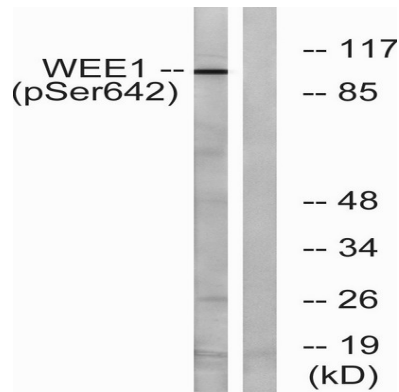
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Image Data

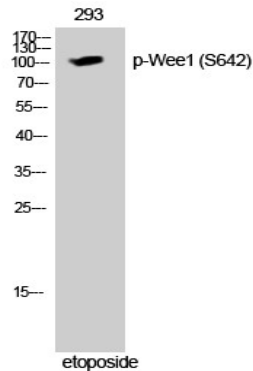


Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using WEE1 (Phospho-Ser642) Antibody

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Western blot analysis of lysates from 293 cells treated with etoposide 25uM 60', using WEE1 (Phospho-Ser642) Antibody. The lane on the right is blocked with the phospho peptide.



Western Blot analysis of 293 cells using Phospho-Wee1 (S642) Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Invent biotech, MN, USA).

Note

For research use only.