

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

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,ELISA
<b>Reactivity</b>	Human,Mouse,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Phosphorylated
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,ELISA 1:5000-1:10000
<b>Molecular Weight</b>	100kDa

**Antigen Information**

<b>Gene Name</b>	WEE1
<b>Alternative Names</b>	WEE1; Wee1-like protein kinase; WEE1hu; Wee1A kinase
<b>Gene ID</b>	7465.0
<b>SwissProt ID</b>	P30291
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human WEE1 around the phosphorylation site of Ser642. AA range:597-646

**Background**

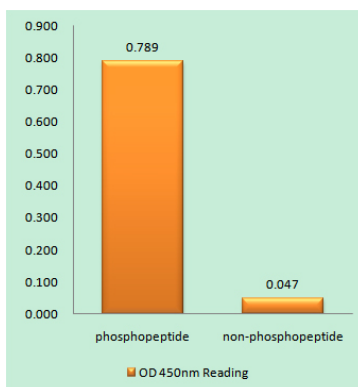
WEE1 G2 checkpoint kinase(WEE1) Homo sapiens This gene encodes a nuclear protein, which is a tyrosine kinase belonging to

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:Bounds 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.,

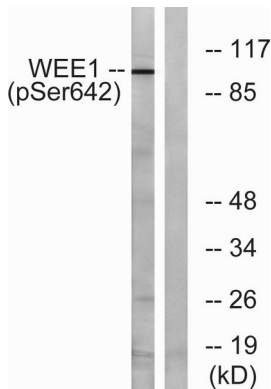
## Research Area

Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;

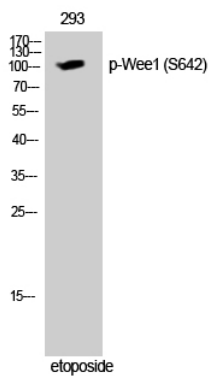
## Image Data



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



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, Inventbiotech, MN, USA).