



Rabbit Anti-Phospho-Wee1 (Ser642) antibody

SL3474R

Product Name:	Phospho-Wee1 (Ser642)
Chinese Name:	磷酸化WEE1蛋白抗体
Alias:	Wee1 (Phospho Ser642); Wee1 (Phospho S642); DKFZp686I18166; EC 2.7.10.2; FLJ16446; Wee 1; Wee1 homolog; WEE1 homolog S. pombe; Wee1 like protein kinase; Wee1 tyrosine kinase; Wee1+ homolog; Wee1+ S. pombe homolog; WEE1A; Wee1A kinase; WEE1hu; WEE1 tyrosine kinase isoform 1; MGC105683; WEE1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Rabbit,
Applications:	ELISA=1:500-1000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	72kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human Wee1 around the phosphorylation site of Ser642:SV(p-S)LT
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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.

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'. Specifically phosphorylates and inactivates cyclin B1-complexed CDK1 reaching a maximum during G2 phase and a minimum as cells enter M phase. Phosphorylation of cyclin B1-CDK1 occurs exclusively on 'Tyr-15' and phosphorylation of monomeric CDK1 does not occur. 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.

Subcellular Location:

Nucleus.

Post-translational modifications:

Phosphorylated during M and G1 phases. Also autophosphorylated. Phosphorylation at Ser-642 by BRSK1 and BRSK2 in post-mitotic neurons, leads to down-regulate WEE1 activity in polarized neurons. Phosphorylated at Ser-53 and Ser-123 by PLK1 and CDK1, respectively, generating a signal for degradation that can be recognized by the SCF(BTRC) complex, leading to its ubiquitination and degradation at the onset of G2/M phase.

Ubiquitinated and degraded at the onset of G2/M phase.

Similarity:

Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. WEE1 subfamily.

Contains 1 protein kinase domain.

SWISS:

P30291

Gene ID:

7465

Database links:

[Entrez Gene: 7465](#)Human

[Entrez Gene: 22390](#)Mouse

[Entrez Gene: 308937](#)Rat

[Omim: 193525](#)Human

[SwissProt: P30291](#)Human

[SwissProt: P47810](#)Mouse

[SwissProt: Q63802](#)Rat

[Unigene: 249441](#)Human

[Unigene: 287173](#)Mouse

[Unigene: 208255](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

www.sunlongbiotech.com