

Wee1(S123) Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP22278a

Product Information

Application	WB, E
Primary Accession	P30291
Reactivity	Human, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB57984
Calculated MW	71597

Additional Information

Gene ID	7465
Other Names	Wee1-like protein kinase, WEE1hu, 2.7.10.2, Wee1A kinase, WEE1
Target/Specificity	This Wee1(S123) antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 96-130 amino acids from human Wee1.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Wee1(S123) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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 , PubMed: 7743995 , PubMed: 8348613 , PubMed: 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 , PubMed: 8348613 ,

PubMed:[8428596](#)). Phosphorylation of cyclin B1-CDK1 occurs exclusively on 'Tyr-15' and phosphorylation of monomeric CDK1 does not occur (PubMed:[7743995](#), PubMed:[8348613](#), PubMed:[8428596](#)). Its activity increases during S and G2 phases and decreases at M phase when it is hyperphosphorylated (PubMed:[7743995](#)). A correlated decrease in protein level occurs at M/G1 phase, probably due to its degradation (PubMed:[7743995](#)).

Cellular Location

Nucleus.

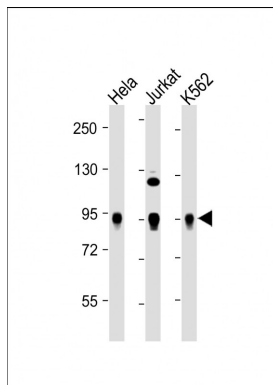
Background

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.

References

Watanabe N.,et al.EMBO J. 14:1878-1891(1995).
Cichutek A.,et al.Cytogenet. Cell Genet. 93:277-283(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Taylor T.D.,et al.Nature 440:497-500(2006).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

Images



All lanes : Anti-Wee1(S123) Antibody at 1:2000 dilution
Lane 1: HeLa whole cell lysate Lane 2: Jurkat whole cell lysate Lane 3: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 72 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.