ARG55245
anti-WEE1 antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes WEE1
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	WEE1
Species	Human
Immunogen	KLH-conjugated synthetic peptide corresponding to aa. 144-173 (Center) of Human WEE1.
Conjugation	Un-conjugated
Alternate Names	Wee1A kinase; Wee1-like protein kinase; WEE1hu; WEE1A; EC 2.7.10.2

Application Instructions

Application table

Application	Dilution
IHC-P	1:50 - 1:100
WB	1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

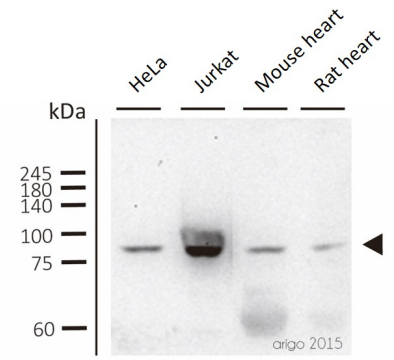
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol: WEE1

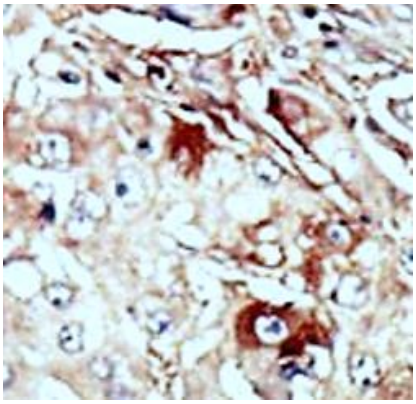
Gene Full Name	WEE1 G2 checkpoint kinase
Background	This gene encodes a nuclear protein, which is a tyrosine kinase belonging to the Ser/Thr family of protein kinases. This protein catalyzes the inhibitory tyrosine phosphorylation of CDC2/cyclin B kinase, and appears to coordinate the transition between DNA replication and mitosis by protecting the nucleus from cytoplasmically activated CDC2 kinase. [provided by RefSeq, Jul 2008]
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. [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Gene Regulation antibody
Calculated Mw	72 kDa
PTM	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 an 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. Dephosphorylated at Thr-239 by CTDP1. Ubiquitinated and degraded at the onset of G2/M phase.
Cellular Localization	Nucleus.

Images



ARG55245 anti-WEE1 antibody WB image

Western blot: 30 µg of HeLa, Jurkat, Mouse heart and Rat heart lysates stained with ARG55245 anti-WEE1 antibody at 1:500 dilution.



ARG55245 anti-WEE1 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human cancer tissue stained with ARG55245 anti-WEE1 antibody.