

ARG41124 anti-CDK1 / CDC2 phospho (Tyr15) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CDK1 / CDC2 phospho (Tyr15)
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CDK1 / CDC2
Species	Human
Immunogen	Phosphospecific peptide around Tyr15 of Human CDK1.
Conjugation	Un-conjugated
Alternate Names	CDK1; Cyclin Dependent Kinase 1; CDC28A; CDC2; Cell Division Cycle 2, G1 To S And G2 To M; Cell Division Control Protein 2 Homolog; Cell Division Protein Kinase 1; Cyclin-Dependent Kinase 1; P34 Protein Kinase; P34CDC2; Cell Cycle Controller CDC2; EC 2.7.11.22; EC 2.7.11.23; CDKN1

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:200
	IP	1:50 - 1:200
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HeLa	

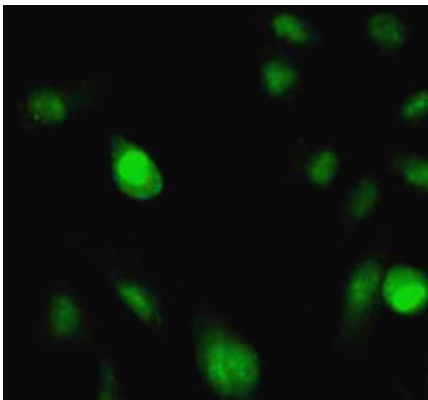
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
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. 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.

Bioinformation

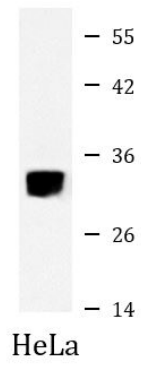
Gene Symbol	CDK1
Gene Full Name	Cyclin Dependent Kinase 1
Background	<p>The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein is a catalytic subunit of the highly conserved protein kinase complex known as M-phase promoting factor (MPF), which is essential for G2/M phase transitions of eukaryotic cell cycle. Mitotic cyclins stably associate with this protein and function as regulatory subunits. The kinase activity of this protein is controlled by cyclin accumulation and destruction through the cell cycle. The phosphorylation and dephosphorylation of this protein also play important regulatory roles in cell cycle control. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2023]</p>
Function	<p>Plays a key role in the control of the eukaryotic cell cycle by modulating the centrosome cycle as well as mitotic onset; promotes G2-M transition via association with multiple interphase cyclins. [UniProt]</p>
Research Area	Cell Biology and Cellular Response antibody; Gene Regulation antibody; Neuroscience antibody
Calculated Mw	34 kDa
PTM	<p>Phosphorylation at Thr-14 and Tyr-15 by PKMYT1 prevents nuclear translocation.</p> <p>Phosphorylation at Tyr-15 by WEE1 and WEE2 inhibits the protein kinase activity and acts as a negative regulator of entry into mitosis (G2 to M transition).</p> <p>Dephosphorylation by active CDC25A and CDC25B at Thr-14 and Tyr-15, leads to CDK1 activation at the G2-M transition.</p> <p>Phosphorylation at Tyr-15 by WEE2 during oogenesis is required to maintain meiotic arrest in oocytes during the germinal vesicle (GV) stage, a long period of quiescence at dictyate prophase I, leading to prevent meiotic reentry.</p> <p>In response to UV irradiation, phosphorylation at Tyr-15 by PRKCD activates the G2/M DNA damage checkpoint. [UniProt]</p>
Cellular Localization	Cytoplasm, Cytoskeleton, Mitochondrion, Nucleus. [UniProt]

Images



ARG41124 anti-CDK1 / CDC2 phospho (Tyr15) antibody ICC/IF image

Immunofluorescence: MCF7 cells stained with ARG41124 anti-CDK1 / CDC2 phospho (Tyr15) antibody.



ARG41124 anti-CDK1 / CDC2 phospho (Tyr15) antibody WB image

Western blot: 25 µg of HeLa cells stained with ARG41124 anti-CDK1 / CDC2 phospho (Tyr15) antibody at 1:1000 dilution.