

P-CDK1/2/3 (T14) Rabbit mAb [0o49]

Cat NO. :A70221

Information:

Applications	Reactivity:	UniProt ID:	MW(kDa)	Host	Isotype	Size
WB IHC ICC/IF IP	Human,Mouse,R at	P06493/P24941/Q00526	34kDa	Rabbit	IgG	50ul,100ul,200ul

Applications detail:

Application	Dilution
WB	1:1000-2000
IHC	1:100
ICC/IF	1:100
The optimal dilutions should be determined by the end user	

Conjugate:

UnConjugate

Form:

Liquid

sensitivity:

Endogenous

Purification:

Affinity-chromatography

Specificity:

Antibody is produced by immunizing animals with A synthesized peptide derived from human Phospho-CDK1/2/3 (T14)

Storage buffer and conditions:

Antibody store in 10 mM PBS, 0.5mg/ml BSA, 50% glycerol (buffer) .

Shipped at 4°C. Store at -20°C or -80°C.

Products are valid for one natural year of receipt.Avoid repeated freeze / thaw cycles.

Tissue specificity:

Isoform 2 is found in breast cancer tissues.

Subcellular location:

Nucleus. Cytoplasm. Mitochondrion. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome.

Cytoplasm, cytoskeleton, spindle.

Function:

Introduction: **WB:** Western Blot **IP:** Immunoprecipitation **IHC:** Immunohistochemistry **ChIP:** Chromatin Immunoprecipitation **ICC/IF:** Immunocytochemistry/Immunofluorescence **F:** Flow Cytometry

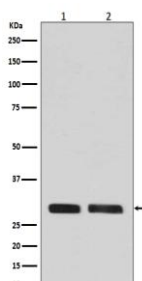
Cross Reactivity: **H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vr:** virus **Ml:** mink **C:** chicken **Dm** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine
Dg: dog **Pg:** pig **Hr:** horse

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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, and regulates G1 progress and G1-S transition via association with multiple interphase cyclins (PubMed:16407259, PubMed:17459720, PubMed:16933150, PubMed:18356527, PubMed:19509060, PubMed:20171170, PubMed:19917720, PubMed:20937773, PubMed:20935635, PubMed:21063390, PubMed:23355470, PubMed:23601106, PubMed:23602554, PubMed:25556658, PubMed:26829474, PubMed:30704899). Required in higher cells for entry into S-phase and mitosis (PubMed:16407259, PubMed:17459720, PubMed:16933150, PubMed:18356527, PubMed:19509060, PubMed:20171170, PubMed:19917720, PubMed:20937773, PubMed:20935635, PubMed:21063390, PubMed:23355470, PubMed:23601106, PubMed:23602554, PubMed:25556658). Phosphorylates PARVA/actopaxin, APC, AMPH, APC, BARD1, Bcl-xL/BCL2L1, BRCA2, CALD1, CASP8, CDC7, CDC20, CDC25A, CDC25C, CC2D1A, CENPA, CSNK2 proteins/CKII, FZR1/CDH1, CDK7, CEBPB, CHAMP1, DMD/dystrophin, EEF1 proteins/EF-1, EZH2, KIF11/EG5, EGFR, FANCG, FOS, GFAP, GOLGA2/GM130, GRASP1, UBE2A/hHR6A, HIST1H1 proteins/histone H1, HMGA1, HIVEP3/KRC, KAT5, LMNA, LMNB, LMNC, LBR, LATS1, MAP1B, MAP4, MARCKS, MCM2, MCM4, MKLP1, MYB, NEFH, NFIC, NPC/nuclear pore complex, PITPNM1/NIR2, NPM1, NCL, NUCKS1, NPM1/numatrin, ORC1, PRKAR2A, EEF1E1/p18, EIF3F/p47, p53/TP53, NONO/p54NRB, PAPOLA, PLEC/plectin, RB1, TPPP, UL40/R2, RAB4A, RAP1GAP, RCC1, RPS6KB1/S6K1, KHDRBS1/SAM68, ESPL1, SKI, BIRC5/survivin, STIP1, TEX14, beta-tubulins, MAPT/TAU, NEDD1, VIM/vimentin, TK1, FOXO1, RUNX1/AML1, SAMHD1, SIRT2, CGAS and RUNX2 (PubMed:16407259, PubMed:17459720, PubMed:16933150, PubMed:18356527, PubMed:19509060, PubMed:20171170, PubMed:19917720, PubMed:20937773, PubMed:20935635, PubMed:21063390, PubMed:23355470, PubMed:23601106, PubMed:23602554, PubMed:25556658, PubMed:32351706, PubMed:26829474, PubMed:30704899). CDK1/CDC2-cyclin-B controls pronuclear union in interphase fertilized eggs (PubMed:18480403, PubMed:20360007). Essential for early stages of embryonic development (PubMed:18480403, PubMed:20360007). During G2 and early mitosis, CDC25A/B/C-mediated dephosphorylation activates CDK1/cyclin complexes which phosphorylate several substrates that trigger at least centrosome separation, Golgi dynamics, nuclear envelope breakdown and chromosome condensation (PubMed:18480403, PubMed:20360007). Once chromosomes are condensed and aligned at the metaphase plate, CDK1 activity is switched off by WEE1- and PKMYT1-mediated phosphorylation to allow sister chromatid separation, chromosome decondensation, reformation of the nuclear envelope and cytokinesis (PubMed:18480403, PubMed:20360007). Inactivated by PKR/EIF2AK2- and WEE1-mediated phosphorylation upon DNA damage to stop cell cycle and genome replication at the G2 checkpoint thus facilitating DNA repair (PubMed:20360007). Reactivated after successful DNA repair through WIP1-dependent signaling leading to CDC25A/B/C-mediated

Validation Data:

P-CDK1/2/3 (T14) Rabbit mAb [0o49] Images



Western blot (SDS PAGE) analysis of extracts from (1) A431 cell lysate; (2) HeLa cell lysate. Using P-CDK1/2/3 (T14) Rabbit mAb [0o49] at dilution of 1:1000 incubated at 4°C over night.

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IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 1% w/v Milk, 1X TBST at 4°C overnight.