

## Anti-Phospho-CDK1/2/3 (Thr14) Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

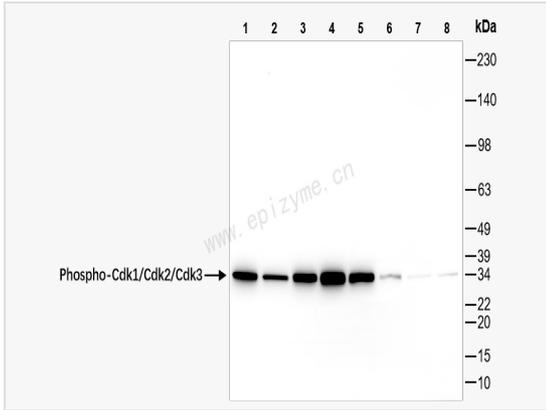
Catalog # R013525

### Product Information

Application	WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	72L26M39
Isotype	IgG
Label	Unconjugated
Immunogen	A synthetic phosphopeptide corresponding to residues surrounding Thr14 of human Cdk1
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Phospho-CDK1/2/3 (Thr14) Rabbit mAb [72L26M39] is for research use only and not for use in diagnostic or therapeutic procedures.

### Protein Information

Synonyms	phospho-cdc2(Thr14); CDK1(phospho Thr14); CDK1(phospho T14); Cdc 2; Cdc2; CDC28A; CDK 1; CDK1_HUMAN; CDKN1; CELL CYCLE CONTROLLER CDC2; Cell division control protein 2; Cell division control protein 2 homolog; Cell division cycle 2 G1 to S and G2 to M; Cell division protein kinase 1; Cell Division Cycle 2 Protein; Cyclin Dependent Kinase 1; Cyclin-dependent kinase 1; DKFZp686L20222; MGC111195; p34 Cdk1; p34 protein kinase; P34CDC2.
Calculated MW	Calculated MW: 34 kDa; Observed MW: 34 kDa
Uniprot ID	P06493
Gene ID	983
Background	This gene encodes a member of a family of serine/threonine protein kinases that participate in cell cycle regulation. The encoded protein is the catalytic subunit of the cyclin-dependent protein kinase complex, which regulates progression through the cell cycle. Activity of this protein is especially critical during the G1 to S phase transition. This protein associates with and regulated by other subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A), and p27Kip1 (CDKN1B). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2014]
Cellular Location	Nucleus Cytoplasm Mitochondrion Cytoplasm Cytoskeleton Microtubule organizing center Centrosome Cytoplasm Cytoskeleton Spindle Cytoplasmic during the interphase. Colocalizes with SIRT2 on centrosome during prophase and on spindle fibers during metaphase of the mitotic cell cycle. Reversibly translocated from cytoplasm to nucleus when phosphorylated before G2-M transition when associated with cyclin-B1. Accumulates in mitochondria in G2-arrested cells upon DNA-damage.



Western Blot - Anti-Phospho-CDK1/2/3 (Thr14) Rabbit mAb [72L26M39]

All lanes: R013525 at 1:1,000 dilution

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates

Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates

Lane 4: 293T (Human embryonic kidney cell) whole cell lysates

Lane 5: Ball-1 (Human B lymphocyte acute leukemia cell) whole cell lysates

Lane 6: U87 (Human malignant glioblastoma epithelial cells) whole cell lysates

Lane 7: Raw264.7 (Mouse mononuclear macrophage leukemia cell) whole cell lysates

Lane 8: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates

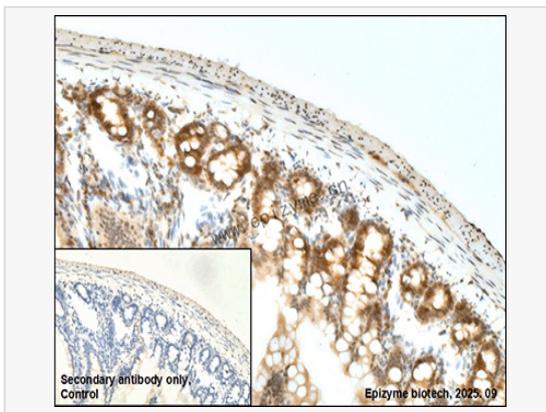
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 34 kDa

Observed band size: 34 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-Phospho-CDK1/2/3 (Thr14) Rabbit mAb [72L26M39]

Sample: Paraformaldehyde-fixed, paraffin embedded rat colon tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R013525 at 1:200 dilution

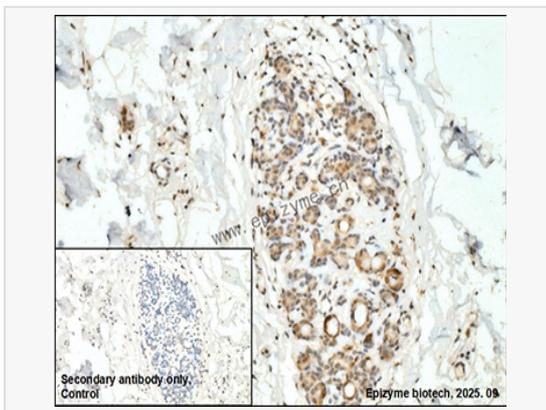
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Phospho-CDK1/2/3 (Thr14) Rabbit mAb [72L26M39]

Sample: Paraformaldehyde-fixed, paraffin embedded human breast cancer tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R013525 at 1:200 dilution

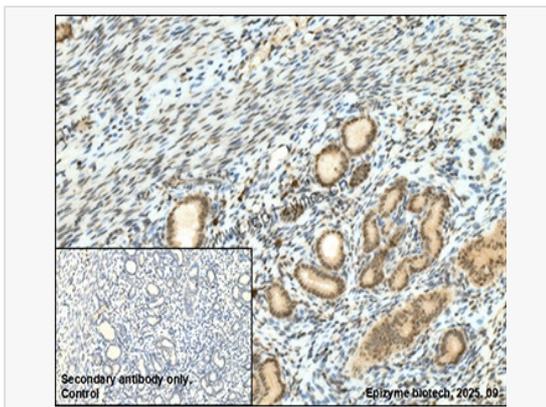
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Phospho-CDK1/2/3 (Thr14) Rabbit mAb [72L26M39]

Sample: Paraformaldehyde-fixed, paraffin embedded mouse ovary tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R013525 at 1:200 dilution

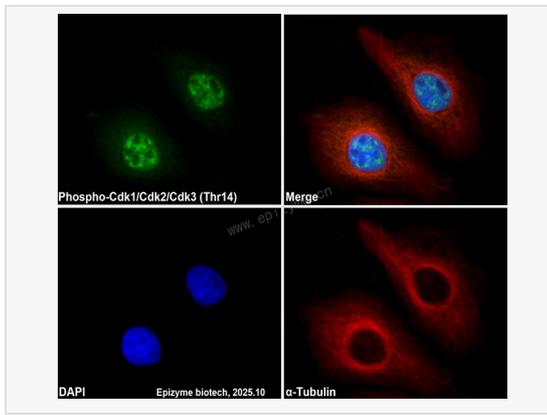
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



#### Immunofluorescence - Anti-Phospho-CDK1/2/3 (Thr14) Rabbit mAb [72L26M39]

Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R013525 at 1:100 dilution and  $\alpha$ -tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).