

Anti-CDK4 Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

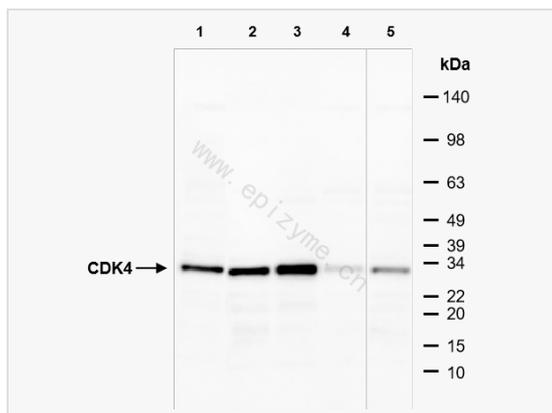
Catalog # M900015

Product Information

Application	WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse (Cell), Rat
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Mouse
Clonality	Monoclonal
Clone No.	17D20H06
Isotype	IgG
Label	Unconjugated
Immunogen	This CDK4 antibody is generated from mice immunized with a SHC (Shrimp Hemocyanin) conjugated synthetic peptide between 17-30 amino acids from homo sapiens (Human).
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% 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-CDK4 Mouse mAb [17D20H06] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	Cdk 4, cdk4, CDK4 protein, CDK4_HUMAN, Cell division kinase 4, Cell division protein kinase 4, CMM 3, CMM3, Crk3, Cyclin dependent kinase 4, Cyclin-dependent kinase 4, Melanoma cutaneous malignant 3, MGC14458, p34 cdk4, PSK J3, PSK-J3.
Calculated MW	Calculated MW: 34 kDa; Observed MW: 34 kDa
Uniprot ID	P11802
Gene ID	1019
Background	Ser/Thr-kinase component of cyclin D-CDK4 (DC) complexes that phosphorylate and inhibit members of the retinoblastoma (RB) protein family including RB1 and regulate the cell-cycle during G1/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complexes and the subsequent transcription of E2F target genes which are responsible for the progression through the G1 phase. Hypophosphorylates RB1 in early G1 phase. Cyclin D-CDK4 complexes are major integrators of various mitogenic and antimitogenic signals. Also phosphorylates SMAD3 in a cell-cycle-dependent manner and represses its transcriptional activity. Component of the ternary complex, cyclin D/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex.
Cellular Location	Cytoplasm. Nucleus. Membrane. Cytoplasmic when non-complexed. Forms a cyclin D-CDK4 complex in the cytoplasm as cells progress through G(1) phase. The complex accumulates on the nuclear membrane and enters the nucleus on transition from G(1) to S phase. Also present in nucleoli and heterochromatin lumps. Colocalizes with RB1 after release into the nucleus.



Western Blot - Anti-CDK4 Mouse mAb [17D20H06]

All lanes: M900015 at 1:1,000 dilution

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

Lane 2: Raw264.7 (Mouse mononuclear macrophage leukemia cell) whole cell lysates

Lane 3: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 4: T24 (Human bladder cancer epithelial cell) whole cell lysates

Lane 5: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates

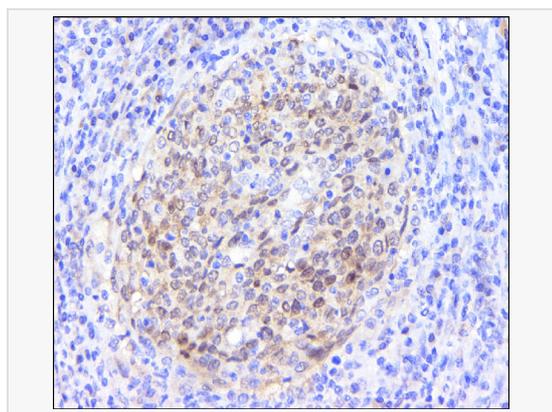
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Mouse IgG(H+L), HRP Conjugated (Cat. No. LF101) 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-CDK4 Mouse mAb [17D20H06]

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

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

Primary antibody: M900015 at 1:200 dilution

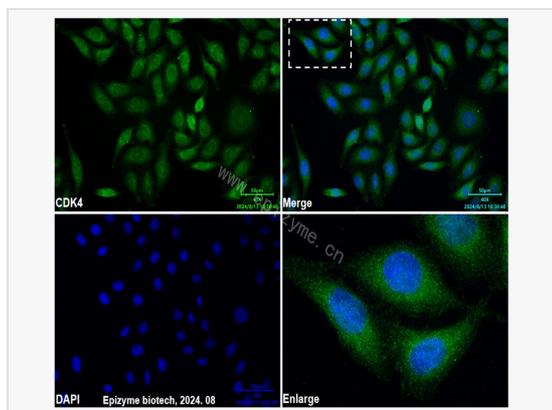
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution

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-CDK4 Mouse mAb [17D20H06]

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: M900015 at 1:100 dilution

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

Nuclei were stained with DAPI (shown in blue).