

Anti-CDK5 Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

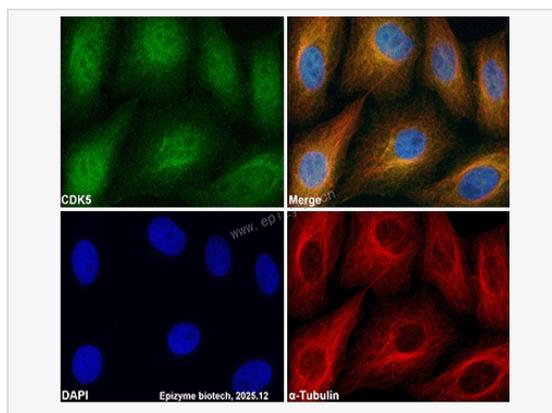
Catalog # M010131

Product Information

Application	WB, IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:2,000; IF 1:100~1:200
Host	Mouse
Clonality	Monoclonal
Clone No.	42M82M82
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human CDK5
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-CDK5 Mouse mAb [42M82M82] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	LIS7; PSSALRE; Crk6; CDK5_HUMAN; CDK5; Cell division protein kinase 5; Cyclin-dependent-like kinase 5; Serine/threonine-protein kinase PSSALRE; Tau protein kinase II catalytic subunit (TPKII catalytic subunit); 2.7.11.1; CDKN5; CDK5_MOUSE.
Calculated MW	Calculated MW: 33 kDa; Observed MW: 33 kDa
Uniprot ID	Q00535
Gene ID	1020
Background	This gene encodes a proline-directed serine/threonine kinase that is a member of the cyclin-dependent kinase family of proteins. Unlike other members of the family, the protein encoded by this gene does not directly control cell cycle regulation. Instead the protein, which is predominantly expressed at high levels in mammalian postmitotic central nervous system neurons, functions in diverse processes such as synaptic plasticity and neuronal migration through phosphorylation of proteins required for cytoskeletal organization, endocytosis and exocytosis, and apoptosis. In humans, an allelic variant of the gene that results in undetectable levels of the protein has been associated with lethal autosomal recessive lissencephaly-7. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2015]
Cellular Location	Isoform 1 Cytoplasm Nucleus Cell membrane Peripheral membrane protein Perikaryon Cell projection Lamellipodium Cell projection Growth cone Postsynaptic density Synapse In axonal growth cone with extension to the peripheral lamellipodia (By similarity). Under neurotoxic stress and neuronal injury conditions, CDK5R (p35) is cleaved by calpain to generate CDK5R1 (p25) in response to increased intracellular calcium. The elevated level of p25, when in complex with CDK5, leads to its subcellular misallocation as well as its hyperactivation. Colocalizes with CTNND2 in the cell body of neuronal cells, and with CTNNB1 in the cell-cell contacts and plasma membrane of undifferentiated and differentiated neuroblastoma cells. Reversibly



Immunofluorescence - Anti-CDK5 Mouse mAb [42M82M82]

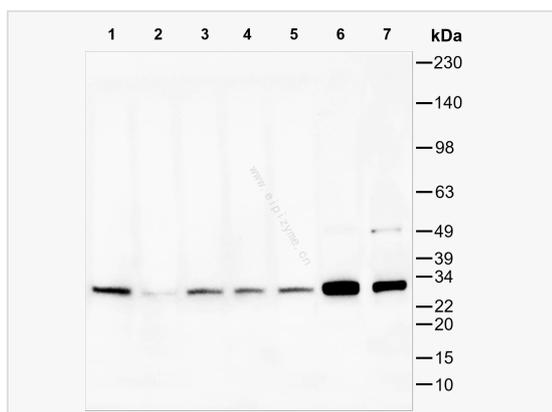
Sample: HeLa cells

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 antibody: M010131 at 1:100 dilution and α -tubulin Rabbit Monoclonal Antibody (Cat. No. LF213) at 1:100 dilution

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

Nuclei were stained with DAPI (shown in blue).



Western Blot - Anti-CDK5 Mouse mAb [42M82M82]

All lanes: M010131 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: MCF-7 (human breast adenocarcinoma epithelial cell) whole cell lysates

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

Lane 5: U87 (Human malignant glioblastoma epithelial cells) whole cell lysates

Lane 6: Mouse brain whole tissue lysates

Lane 7: Rat brain whole tissue lysates

Lysates/proteins at 10 μ g per lane.

Secondary antibody: Goat Anti-Mouse IgG(H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution

Predicted band size: 33 kDa

Observed band size: 33 kDa

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