

Anti-CDK5 Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

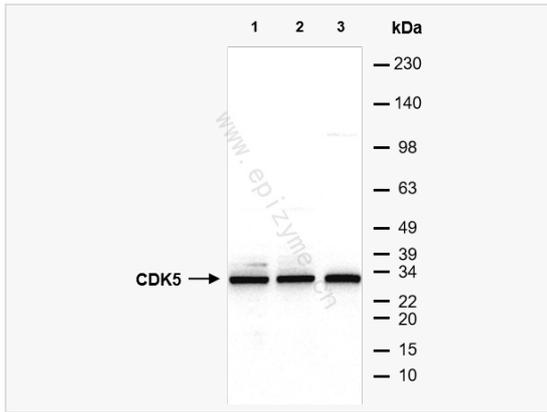
Catalog # M014685

Product Information

Application	WB, ELISA
Reactivity	Rat, Human, Mouse (Cell)
Dilution	WB 1:1,000~1:2,000
Host	Mouse
Clonality	Monoclonal
Clone No.	73F62B37
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human CDK5
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-CDK5 Mouse mAb [73F62B37] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	Cdk 5, Cdk5, CDK5_HUMAN, Cell division protein kinase 5, Crk6, Cyclin dependent kinase 5, Cyclin-dependent kinase 5, Protein kinase CDK5 splicing, PSSALRE, Serine threonine protein kinase PSSALRE, Serine/threonine-protein kinase PSSALRE, Tau protein kinase II catalytic subunit, TPKII catalytic subunit.
Calculated MW	Calculated MW: 33 kDa; Observed MW: 33 kDa
Uniprot ID	Q00535
Gene ID	1020
Background	Proline-directed serine/threonine-protein kinase essential for neuronal cell cycle arrest and differentiation and may be involved in apoptotic cell death in neuronal diseases by triggering abortive cell cycle re-entry. Interacts with D1 and D3-type G1 cyclins. Phosphorylates SRC, NOS3, VIM/vimentin, p35/CDK5R1, MEF2A, SIPA1L1, SH3GLB1, PXN, PAK1, MCAM/MUC18, SEPT5, SYN1, DNMI, AMPH, SYNJ1, CDK16, RAC1, RHOA, CDC42, TONEBP/NFAT5, MAPT/TAU, MAP1B, histone H1, p53/TP53, HDAC1, APEX1, PTK2/FAK1, huntingtin/HTT, ATM, MAP2, NEFH and NEFM. Regulates several neuronal development and physiological processes including neuronal survival, migration and differentiation, axonal and neurite growth, synaptogenesis, oligodendrocyte differentiation, synaptic plasticity and neurotransmission, by phosphorylating key proteins. Activated by interaction with CDK5R1 (p35) and CDK5R2 (p39), especially in post-mitotic neurons, and promotes CDK5R1 (p35) expression in an autostimulation loop. Phosphorylates many downstream substrates such as Rho and Ras family small GTPases (e.g. PAK1, RAC1, RHOA, CDC42) or microtubule-binding proteins (e.g. MAPT/TAU, MAP2, MAP1B), and modulates actin dynamics to regulate neurite growth and/or spine morphogenesis. Phosphorylates also exocytosis associated proteins such as MCAM/MUC18, SEPT5, SYN1, and CDK16/PCTAIRE1 as well as endocytosis associated proteins such as



Western Blot - Anti-CDK5 Mouse mAb [73F62B37]

All lanes: M014685 at 1:1,000 dilution

Lane 1: Raw264.7 (Mouse mononuclear macrophage leukemia cell) whole cell lysates

Lane 2: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 3: T24 (Human bladder cancer epithelial cell) whole cell 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).