



CDK5(N-term) mouse mAb

Catalog No	YP-Ab-16572
Isotype	IgG
Reactivity	Human;Mouse;Rat;Monkey
Applications	WB;ICC
Gene Name	cdk5
Protein Name	
Immunogen	Purified recombinant human CDK5(N-terminus) protein fragments expressed in E.coli.
Specificity	This antibody detects endogenous levels of CDK5(N-terminus) and does not cross-react with related proteins.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
Dilution	wb 1:500 icc 1:150
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
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.
Observed Band	36kD
Cell Pathway	[Isoform 1]: Cytoplasm . Nucleus . Cell membrane ; Peripheral membrane protein. Perikaryon. Cell projection, lamellipodium . Cell projection, growth cone . Cell junction, synapse, postsynaptic density . Cell junction, 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 attach
Tissue Specificity	[Isoform 1]: Ubiquitously expressed (PubMed:17009320, PubMed:19693690). Accumulates in cortical neurons (at protein level) (PubMed:17009320). ; [Isoform 2]: Expressed in the testis, skeletal muscle, colon, bone marrow and ovary.



Function

catalytic activity: ATP + a protein = ADP + a phosphoprotein., function: Probably involved in the control of the cell cycle. Interacts with D1 and D3-type G1 cyclins. Can phosphorylate histone H1, tau, MAP2 and NF-H and NF-M. Also interacts with p35 which activates the kinase., similarity: Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily., similarity: Contains 1 protein kinase domain., subcellular location: In axonal growth cone with extension to the peripheral lamellipodia., subunit: Heterodimer of a catalytic subunit and a regulatory subunit (p35). Found in a trimolecular complex with CABLES1 and ABL1. Interacts with CABLES1 (By similarity). Interacts with AATK.,

Background

cyclin dependent kinase 5(CDK5) Homo sapiens 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],

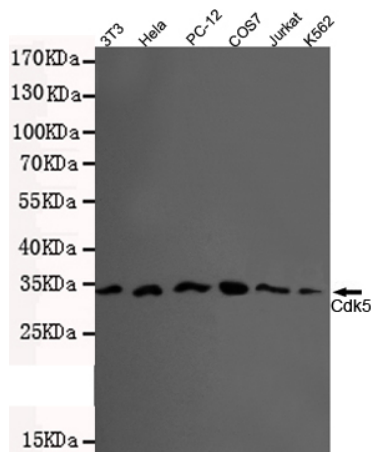
matters needing attention

Avoid repeated freezing and thawing!

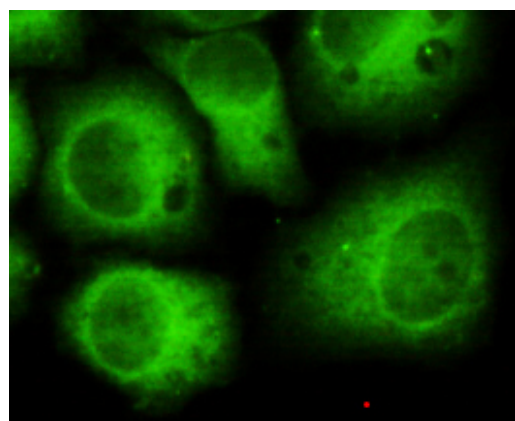
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western blot detection of CDK5(N-terminus) in 3T3, HeLa, PC-12, COS7, Jurkat and K562 lysates using Cdk5 mouse mAb (1:500 diluted). Predicted band size: 36KDa. Observed band size: 36KDa. Exposure time: 5min.



Immunocytochemistry of HeLa cells using anti-CDK5(N-terminus) mouse mAb diluted 1:150