CDK5 (Phospho-Ser159) mouse mAb

Catalog No	BYmab-10468
Isotype	IgG
Reactivity	Human; Mouse;Rat
Applications	WB
Gene Name	CDK5 CDKN5
Protein Name	CDK5 (Phospho-Ser159)
Immunogen	Synthesized peptide derived from human CDK5 (Phospho-Ser159)
Specificity	This antibody detects endogenous levels of CDK5 (Phospho-Ser159) at Human, Mouse,Rat
Formulation	Liquid in PBS containing 50% glycerol, and 0.123% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Cyclin-dependent kinase 5 (EC 2.7.11.22) (Cell division protein kinase 5) (Serine/threonine-protein kinase PSSALRE) (Tau protein kinase II catalytic subunit) (TPKII catalytic subunit)
Observed Band	
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 analysis of various cells using CDK5 (Phospho-Ser159) mouse mAb