

Anti-CDK5

Rabbit Polyclonal Antibody

Catalog # C33-63R

Lot # B3216-33

Cited Applications

ELISA, IP, WB

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the 35kDa CDK5 (p31) protein

Cross Reactivity

Human, Rat and Mouse

Host/Isotype/Clone#

Rabbit, Antiserum

Immunogen

The antibody was produced against synthesized peptide corresponding to the C-Terminus of human CDK5 protein conjugated to KLH.

Formulation

0.01% (w/v) Sodium Azide

Stability

1yr at -20° C from date of shipment

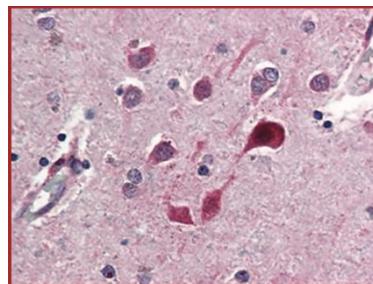
Scientific Background

The neuronal protein kinase, CDK5 is implicated in a vast array of normal neuronal functions including regulation of neurotransmitter synthesis (1), the presynaptic vesicle cycle (2), neurotransmitter receptor trafficking, and dopamine neurotransmission (3). CDK5 is active as a heterodimer with a 25 kDa protein. The 25 kDa protein is derived proteolytically from a 35 kDa brain and neuron-specific precursor protein (4). CDK5 phosphorylates a diverse list of substrates and has been implicated in a wide range of neurological and neuropsychiatric disorders, which include Alzheimer's, Parkinson's, Huntington's, epilepsy, schizophrenia, and drug addiction (5).

References:

1. Kansy, J. et al. Identification of tyrosine hydroxylase as a physiological substrate of Cdk5. J. Neurochem. 2004 91, 374-384.
2. Nguyen, C. et al: Cdk5 and the mystery of synaptic vesicle endocytosis. J Cell Biol. 2003 163, 697- 699. Bibb, J A. et al. Phosphorylation of DARPP-32 by Cdk5 modulates dopamine signaling in neurons. Nature 1999 402, 669-671.
3. Tang, D. et al: Cyclin-dependent kinase 5 (Cdk5) and neuron-specific Cdk5 activators. Prog Cell Cycle Res. 1996;2:205-16.
4. Dhavan, R. et al: A decade of CDK5. Nat Rev Mol Cell Biol. 2001 Oct;2(10):749-59.

Sample Data



Anti-CDK5 antibody was diluted 1:500 to detect CDK5 in human brain cortex tissue. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counter stain.

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Purification	Delipidation and defibrination
Stability	1yr at -20° C from date of shipment
Storage & Shipping	Store product at -20° C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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