

## 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

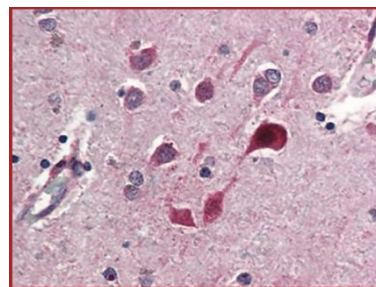
### Scientific Background

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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Catalog #	C33-63R
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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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