

ARG52240 anti-CDK5 antibody [1H3]

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [1H3] recognizes CDK5
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	1H3
Isotype	IgG1
Target Name	CDK5
Species	Rat
Immunogen	Purified rat Cdk5
Conjugation	Un-conjugated
Alternate Names	Cell division protein kinase 5; TPKII catalytic subunit; LIS7; PSSALRE; Serine/threonine-protein kinase PSSALRE; Cyclin-dependent-like kinase 5; EC 2.7.11.1; Tau protein kinase II catalytic subunit

Application Instructions

Application table	Application	Dilution
	IHC-P	1:500
	WB	1:1,000

Application Note	<p>The antibody is specific for the ~ 28kDa Cdk5 protein in Western blots of Rat striatal lysate. The antibody shows no cross reactivity with the Cdk5 cofactor p35 or its degradation product p25. This monoclonal also works well for immunocytochemistry using primary cultured Rat neurons and for immunohistochemistry on mouse brain tissue.</p> <p>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.</p>
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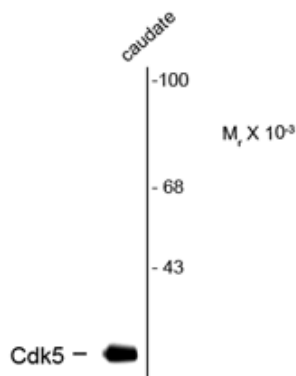
Properties

Form	Liquid
Purification	Protein G purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CDK5
Gene Full Name	cyclin-dependent kinase 5
Background	The neuronal protein kinase, Cdk5 has been implicated in a vast array of normal neuronal functions including regulation of neurotransmitter synthesis (Kansy J et al., 2004), the presynaptic vesicle cycle (Nguyen, C. & Bibb, JA 2003), neurotransmitter receptor trafficking and dopamine neurotransmission (Bibb, JA et al. 1999). At the same time Cdk5 has been implicated in a plethora of neurological and neuropsychiatric disorders including Alzheimer's, Parkinson's, Huntington's, epilepsy, schizophrenia, and drug addiction. Detection of Cdk5 in normal samples as well as tissue undergoing neurodegeneration may advance studies in these areas. Moreover, this antibody may allow more accurate postmortem evaluations of Cdk5 protein expression, and thus serve as a valuable new reagent for neuropathology.
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Metabolism antibody; Neuroscience antibody
Calculated Mw	33 kDa
PTM	Phosphorylation on Tyr-15 by ABL1 and FYN, and on Ser-159 by casein kinase 1 promotes kinase activity. By contrast, phosphorylation at Thr-14 inhibits activity. Phosphorylation at Ser-159 is essential for maximal catalytic activity.

Images



ARG52240 anti-CDK5 antibody [1H3] WB image

Western Blot: rat caudate lysate showing specific immunolabeling of the ~28k Cdk5 protein stained with CDK5 antibody [1H3] (ARG52240).