



**Mouse (monoclonal)
Anti-Cyclin-dependent kinase 5
(Cdk5/PSSALRE)
Unconjugated**

PRODUCT ANALYSIS SHEET

Catalog Number:	AHZ0492
Lot Number:	See product label
Expiration Date:	See product label
Quantity/Volume:	100 µg/500 µL
Clone Number:	DC34
Isotype:	IgG1 kappa (mouse)
Form of Antibody:	Purified immunoglobulin in 10mM phosphate buffered saline, pH 7.4, with 0.2% bovine serum albumin.
Preservation:	0.09% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification:	Purified from ascites by Protein G chromatography.
Immunogen:	Recombinant cdk5 protein.
Hybridoma:	Produced by the fusion between BALB/c splenocytes and mouse myeloma NS1 cells.
Specificity:	This monoclonal antibody recognizes a protein of 31 kDa, identified as cyclin-dependent kinase 5 (cdk5). Cdk5 is expressed in both cycling and non-cycling cells and is present in numerous mammalian tissues. However, its highest concentration is found in differentiated neurons, and the only known protein that activates cdk5, p35Nck5a, is expressed solely in the brain. The mechanism of activation of cdk5 by p35Nck5a differs from that of cyclin activation of cdks in that full cdk5 kinase activity is achieved in the absence of phosphorylation of cdk5. Cdk5 activity is reported to be involved in terminal differentiation of neurons and active cdk5 is thought to be involved in the in vivo phosphorylation of the neurofilament proteins and tau which are hyperphosphorylated in neurodegenerative diseases such as Alzheimer's disease.
Species Reactivity:	Human, rat, mouse and <i>C. elegans</i> cdk5 protein. Other species were not tested.
Applications:	This antibody is suitable for use in Western blotting, immunoprecipitation, and immunofluorescence.
Suggested Working Dilutions:	For Western blotting, 0.5-1.0 µg/mL of antibody is recommended, and for immunoprecipitation, 1.0-2.0 µg of antibody is recommended for 200-500 µg of protein lysate. The optimal antibody concentration should be determined for each specific application.
Recommended Positive Control:	Neuronal cell lines e.g., SH-SY5Y, and PC12 cells.

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Storage: Store at 2-8°C.














References: Tang, D. and Wang, J.H. (1996) Cyclin-dependent kinase 5 (Cdk5) and neuron-specific Cdk5 activators. *Prog. Cell Cycle Res.* 2:205-216.

Moorthamer, M. and Chaudhuri, B. (1999) Identification of ribosomal protein L34 as a novel cdk5 inhibitor. *Biochem. Biophys. Res. Commun.* 225(3):631-638.

Wada, Y., et al. (1998) Microtubule-stimulated phosphorylation of tau at S202 and Thr205 by cdk5 decreases its microtubule nucleation activity. *J. Biochem. (Tokyo)* 124(4):738-756.

Sengupta, A., et al. (1998) Phosphorylation of tau at both Thr 231 and Ser 262 is required for maximal inhibition of its binding to microtubules. *Arch. Biochem. Biophys.* 357(2):299-309.

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		<i>In vitro</i> diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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