

Datasheet for ABIN670101

anti-CDK5 antibody (AA 15-100)

3 Images

3 Publications

[Go to Product page](#)

Overview

Quantity:	100 µL
Target:	CDK5
Binding Specificity:	AA 15-100
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CDK5 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human CDK5
Isotype:	IgG
Specificity:	This antibody will detect both isoform variants of this protein. Due to similar amino acid composition of this protein to CDK3 in human, there is a chance that this antibody will react with CDK3 in human, based on an 83 % sequence similarity.
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Cow,Pig
Purification:	Purified by Protein A.

Target Details

Target:	CDK5
Alternative Name:	CDK5 (CDK5 Products)
Background:	<p>Synonyms: PSSALRE, Cyclin-dependent-like kinase 5, Cell division protein kinase 5, Serine/threonine-protein kinase PSSALRE, Tau protein kinase II catalytic subunit, TPKII catalytic subunit, CDK5, CDKN5</p> <p>Background: CDK5 is serine/threonine kinase involved in synaptic regulation and neuronal development, phosphorylates synaptic protein Pctaire1, regulates acetylcholine receptor expression. CDK5 is a member of the cyclindependent kinase family of serine/threonine kinases. It is present in numerous mammalian tissues including kidney, testes, and ovary. Its activity is detected almost exclusively in brain extracts. Neuronal and muscle cells contain the highest amount of this protein. Similar to other Cdks, monomeric Cdk5 displays no enzymatic activity, but Cdk5 is not activated by cyclins. Instead, the p35 protein, which is expressed solely in the brain, activates Cdk5. Cdk5 interacts with D1 and D3 type G1 cyclins and can phosphorylate histone H1, TAU, MAP2 and NF-H and NF-M. Cdk5 activity is involved in terminal differentiation of neurons and muscle cells.</p>
Gene ID:	1020
UniProt:	Q00535
Pathways:	Cell Division Cycle , Regulation of Muscle Cell Differentiation , Synaptic Membrane , Regulation of Cell Size , Skeletal Muscle Fiber Development , Synaptic Vesicle Exocytosis

Application Details

Application Notes:	WB 1:300-5000 FCM 1:20-100 IHC-P 1:200-400 IHC-F 1:100-500 IF(IHC-P) 1:50-200 IF(IHC-F) 1:50-200 IF(ICC) 1:50-200
Restrictions:	For Research Use only

Handling

Format:	Liquid
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Handling

Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

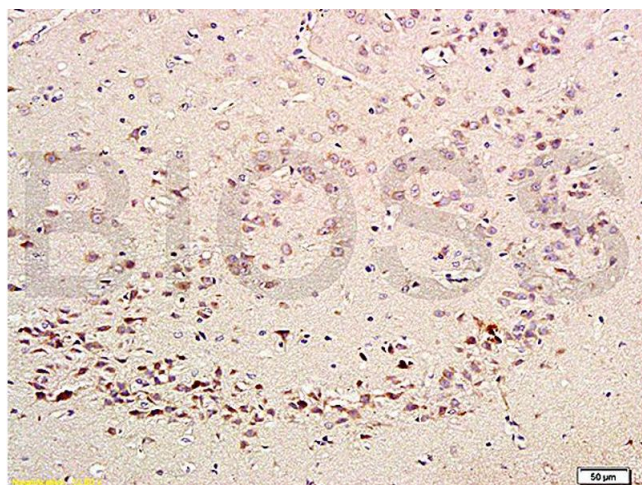
Publications

Product cited in:	<p>Cao, Jia, Wei, Liu, Li: "Traditional Chinese Medicine Huannao Yicong Decoction Extract Decreases Tau Hyperphosphorylation in the Brain of Alzheimer's Disease Model Rats Induced by Aβ1-42." in: Evidence-based complementary and alternative medicine : eCAM, Vol. 2016, pp. 6840432, (2016) (PubMed).</p> <p>Yin, Qi, Ren, Wang, Jiang, Feng, Cui: "Roscovitine treatment caused impairment of fertilizing ability in mice." in: Toxicology letters, Vol. 237, Issue 3, pp. 200-9, (2015) (PubMed).</p> <p>Li, Wang, Guo, Huang, Zhao, Zhu, Ma, Liang, Zhang, Huang, Wan: "Protective effect of Xingnaojia formulation on rats with brain and liver damage caused by chronic alcoholism." in: Experimental and therapeutic medicine, Vol. 10, Issue 5, pp. 1643-1652, (2015) (PubMed).</p>
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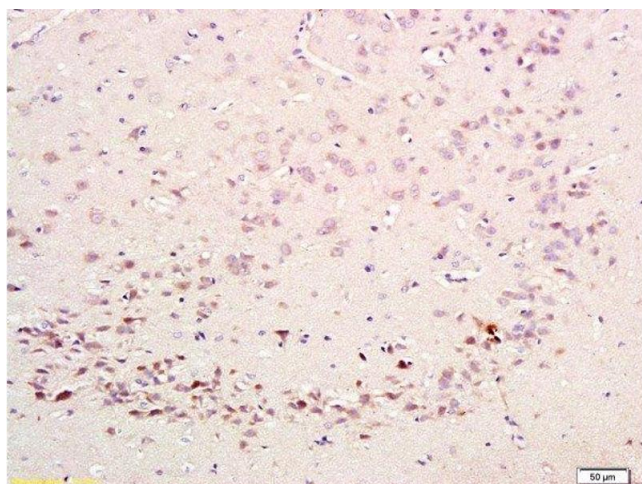
Immunofluorescence

Image 1. Formalin-fixed and paraffin-embedded rat brain labeled with Anti-CDK5 Polyclonal Antibody, Unconjugated (ABIN670101) 1:200, overnight at 4°C, The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated used at 1:200 dilution for 40 minutes at 37°C.



Immunohistochemistry

Image 2. Formalin-fixed and paraffin embedded rat brain labeled with Rabbit Anti-CDK5 Polyclonal Antibody (ABIN670101) at 1:200 followed by conjugation to the secondary antibody and DAB staining.



Immunohistochemistry (Paraffin-embedded Sections)

Image 3. Formalin-fixed and paraffin embedded rat brain labeled with Rabbit Anti-CDK5 Polyclonal Antibody at 1:200 followed by conjugation to the secondary antibody and DAB staining.