



Rabbit Anti-CDK5R1/p35 antibody

SL11611R

Product Name:	CDK5R1/p35
Chinese Name:	Cyclin依赖性激酶5激活因子1抗体
Alias:	CD5R1_HUMAN; CDK 5R1; CDK5 activator 1; CDK5P35; CDK5R; CDK5R1; Cyclin dependent kinase 5 activator 1; Cyclin dependent kinase 5 regulatory subunit 1; Cyclin-dependent kinase 5 activator 1; Cyclin-dependent kinase 5 regulatory subunit 1; MGC33831; NCK 5A; NCK5A; Neuronal CDK5 activator; p23; p25; p25 included; p35; p35nck5a; Regulatory partner for CDK5 kinase; Tau protein kinase II 23 kDa subunit; Tau protein kinase II 23kDa subunit; TPKII regulatory subunit.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	34kDa
Cellular localization:	The nucleuscytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human p35:219-307/307
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The protein encoded by this gene (p35) is a neuron-specific activator of cyclin-dependent kinase 5 (CDK5); the activation of CDK5 is required for proper development

of the central nervous system. The p35 form of this protein is proteolytically cleaved by calpain, generating a p25 form. The cleavage of p35 into p25 results in relocalization of the protein from the cell periphery to nuclear and perinuclear regions. P25 deregulates CDK5 activity by prolonging its activation and changing its cellular location. The p25 form accumulates in the brain neurons of patients with Alzheimer's disease. This accumulation correlates with an increase in CDK5 kinase activity, and may lead to aberrantly phosphorylated forms of the microtubule-associated protein tau, which contributes to Alzheimer's disease. [provided by RefSeq, Jul 2008]

Function:

p35 is a neuron specific activator of CDK5. The complex p35/CDK5 is required for neurite outgrowth and cortical lamination. Activator of TPKII.

Subunit:

Heterodimer composed of a catalytic subunit CDK5 and a regulatory subunit CDK5R1 (p25) and macromolecular complex composed of at least CDK5, CDK5R1 (p35) and CDK5RAP1 or CDK5RAP2 or CDK5RAP3. Only the heterodimer shows kinase activity. Interacts with EPHA4 and NGEF; may mediate the activation of NGEF by EPHA4 (By similarity). Interacts with RASGRF2. [INTERACTION] Q6ZMQ8-1:AATK; NbExp=2; IntAct=EBI-746189, EBI-2008436; Q6ZMQ8-2:AATK; NbExp=6; IntAct=EBI-746189, EBI-2008441; Q00535:CDK5; NbExp=5; IntAct=EBI-746189, EBI-1041567. [SUBCELLULAR LOCATION] Cyclin-dependent kinase 5 activator 1, p35: Cell membrane; Lipid-anchor; Cytoplasmic side (Probable). Note=In the primary cortical neurons, p35 is present in the peripheries and nerve terminals.

Subcellular Location:

Cell membrane. In the primary cortical neurons, p35 is present in the peripheries and nerve terminals and Nucleus. Cytoplasm > perinuclear region. The conversion of p35 to p25 relocalizes the protein from the cell periphery to the cytoplasm, in nuclear and perinuclear regions. In the primary cortical neurons, p25 is primarily concentrated in the cell soma and is largely absent from neurites.

Tissue Specificity:

Brain and neuron specific.

Post-translational modifications:

The p35 form is proteolytically cleaved by calpain, giving rise to the p25 form. P35 has a 5 to 10 fold shorter half-life compared to p25. The conversion results in deregulation of the CDK5 kinase: p25/CDK5 kinase displays an increased and altered tau phosphorylation in comparison to the p35/CDK5 kinase in vivo. Probably myristoylated. The Gly-2-Ala mutant is absent of the cell periphery, suggesting that a proper myristoylation signal is essential for the proper distribution of p35.

Similarity:

Belongs to the cyclin-dependent kinase 5 activator family.

SWISS:
Q15078

Gene ID:
8851

Database links:

[Entrez Gene: 8851](#) Human

[Entrez Gene: 12569](#) Mouse

[Entrez Gene: 116671](#) Rat

[Ovim: 603460](#) Human

[SwissProt: Q28199](#) Cow

[SwissProt: Q15078](#) Human

[SwissProt: P61809](#) Mouse

[SwissProt: A7LNG6](#) Pig

[SwissProt: P61810](#) Rat

[Unigene: 500015](#) Human

[Unigene: 142275](#) Mouse

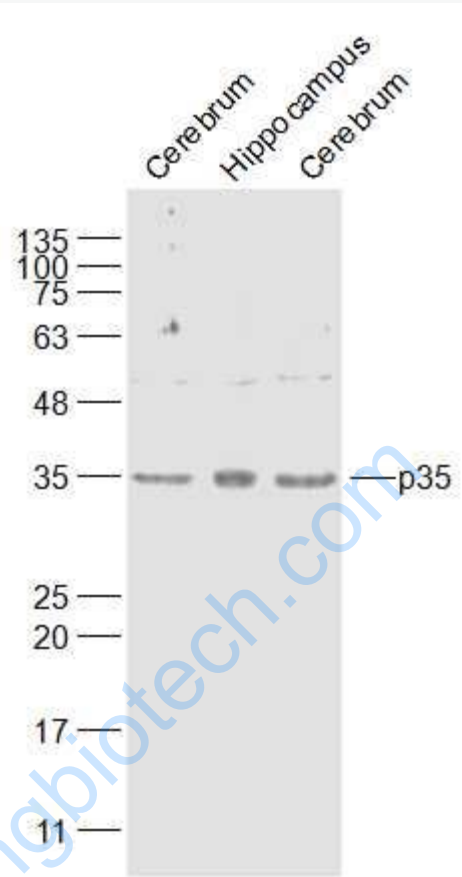
[Unigene: 474282](#) Mouse

[Unigene: 11213](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

Cerebrum (Mouse) Lysate at 40 ug

Hippocampus (Mouse) Lysate at 40 ug

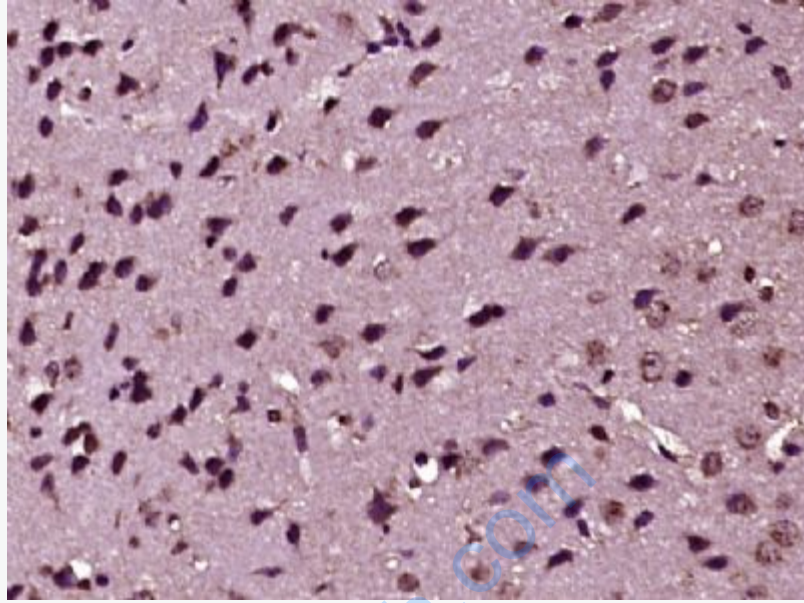
Cerebrum (Rat) Lysate at 40 ug

Primary: Anti-p35(SL11611R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 34 kD

Observed band size: 35 kD



Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDK5R1) Polyclonal Antibody, Unconjugated (SL11611R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.