Rabbit CDK5R1 Polyclonal Antibody | anti-CDK5R1 antibody

CDK5R1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA323983	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunocytochemistry, Immunofluorescence, Western Blot**

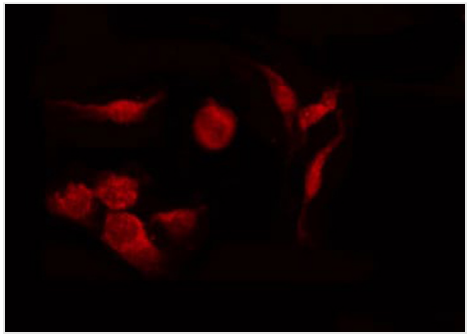
PRODUCT SYNONYMS

CDK5R1; Polyclonal Antibody; CDK5R1 Antibody; CD5R1_HUMAN; CDK5 activator 1; CDK5P35; CDK5R; Cyclin dependent kinase 5 regulatory subunit 1; Cyclin-dependent kinase 5 activator 1; Cyclin-dependent kinase 5 regulatory subunit 1; NCK 5A; Neuronal CDK5 activator; p23; p25; p35; Regulatory partner for CDK5 kinase; Tau protein kinase II 23 kDa subunit; TPKII regulatory subunit; anti-CDK5R1 antibody

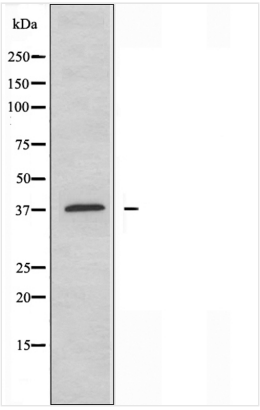
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	CDK5R1 antibody detects endogenous levels of total CDK5R1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	307
Applicable Applications for anti-CDK5R1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide
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.
Predicted Cross Reactivity	**Pig, Bovine, Horse, Sheep, Dog, Chicken, Xenopus**
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Dog (100%), Chicken (82%), Xenopus (86%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)
AAA323983 staining Hela by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of extracts from rat brain cells, using CDK5R1 antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-CDK5R1 antibody	Function: p35 is a neuron specific activator of CDK5. The complex p35/CDK5 is required for neurite outgrowth and cortical lamination. Involved in dendritic spine morphogenesis by mediating the EFNA1-EPHA4 signaling. Activator of TPKII. The complex p35/CDK5 participates in the regulation of the circadian clock by modulating the function of CLOCK protein: phosphorylates CLOCK at 'Thr-451' and 'Thr-461' and regulates the transcriptional activity of the CLOCK-ARNTL/BMAL1 heterodimer in association with altered stability and subcellular distribution. Subunit Structure: 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. The complex p35/CDK5 interacts with CLOCK. 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 (By similarity). Myristoylated. A proper myristoylation signal is essential for the proper distribution of p35. Ubiquitinated. Degradation of p35 by proteasome results in down-regulation of CDK5 activity. During this process, CDK5 phosphorylates p35 and induces its ubiquitination and subsequent degradation. Phosphorylation at Ser-8 and Thr-138 by CDK5 prevents calpain-mediated proteolysis. Similarity: Belongs to the cyclin-dependent kinase 5 activator family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4502737
NCBI GeneID	8851
NCBI Accession #	NP_003876.1
NCBI GenBank Nucleotide #	NM_003885.2
UniProt Accession #	Q15078; Q5U0G3; E1P664
Molecular Weight	Observed: 38 kD Predicted: 35 kDa
NCBI Official Full Name	cyclin-dependent kinase 5 activator 1
NCBI Official Synonym Full Names	cyclin dependent kinase 5 regulatory subunit 1
NCBI Official Symbol	CDK5R1
NCBI Official Synonym Symbols	p23; p25; p35; CDK5R; NCK5A; CDK5P35; p35nck5a
NCBI Protein Information	cyclin-dependent kinase 5 activator 1

UniProt Protein Name	Cyclin-dependent kinase 5 activator 1
UniProt Gene Name	**CDK5R1**
UniProt Synonym Gene Names	CDK5R; NCK5A; CDK5 activator 1; p35; p25; p23

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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