

CDK5R1(p35) Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7743a**Specification**

CDK5R1(p35) Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q15078](#)**CDK5R1(p35) Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 8851**Other Names**

Cyclin-dependent kinase 5 activator 1, CDK5 activator 1, Cyclin-dependent kinase 5 regulatory subunit 1, TPKII regulatory subunit, Cyclin-dependent kinase 5 activator 1, p35, p35, Cyclin-dependent kinase 5 activator 1, p25, p25, Tau protein kinase II 23 kDa subunit, p23, CDK5R1, CDK5R, NCK5A

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7743a](/products/AP7743a) was selected from the p35 region of human CDK5R1(p35). A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CDK5R1(p35) Antibody (N-term) Blocking Peptide - Protein Information**Name** CDK5R1**Synonyms** CDK5R, NCK5A**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-BMAL1 heterodimer in association with altered stability and subcellular distribution.

Cellular Location

[Cyclin-dependent kinase 5 activator 1, p35]: Cell membrane; Lipid-anchor; Cytoplasmic side. Cell projection, neuron projection. Note=In the primary cortical neurons, p35 is present in the peripheries and nerve terminals.

Tissue Location

Brain and neuron specific.

CDK5R1(p35) Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

CDK5R1(p35) Antibody (N-term) Blocking Peptide - Images**CDK5R1(p35) Antibody (N-term) Blocking Peptide - Background**

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.

CDK5R1(p35) Antibody (N-term) Blocking Peptide - References

Lin,S., FEBS Lett. 582 (8), 1197-1202 (2008)Sen,A., Neuroreport 18 (5), 511-516 (2007)Mitsios,N., Brain Pathol. 17 (1), 11-23 (2007)