

# p35 (H-72): sc-5614

## BACKGROUND

Cyclin dependent kinase-5 (Cdk5), a key regulator of cell cycle progression, was originally isolated on the basis of its structural homology to Cdc2, a well-characterized regulator of cell cycle progression. Although Cdk5 is expressed at the highest level in the brain of adult mice, intermediate levels in testis and low or undetectable levels in all other tissues, brain is the only tissue from which Cdk5 can be isolated as an active kinase. These findings may be explained by the cloning and characterization of a Cdk5 regulatory subunit, designated p35. p35 displays a neuronal cell-specific pattern of expression, physically associates with Cdk5 and activates Cdk5 enzymatic activity. p35 is also expressed in many tissues in a truncated form, designated p25.

## REFERENCES

1. Murray, A.W., et al. 1989. Dominoes and clocks: the union of two views of the cell cycle. *Science* 246: 614-621.
2. Nurse, P. 1990. Universal control mechanism regulating onset of M-phase. *Nature* 344: 503-508.
3. Pines, J., et al. 1990. p34Cdc2: the S and M kinase? *New Biol.* 2: 389-401.
4. Draetta, G. 1990. Cell cycle control in eukaryotes: molecular mechanisms of Cdc2 activation. *Trends Biochem. Sci.* 15: 378-383.
5. Meyerson, M., et al. 1992. A family of human Cdc2-related protein kinases. *EMBO J.* 11: 2909-2917.
6. Tsai, L.H., et al. 1994. p35 is a neural-specific regulatory subunit of cyclin-dependent kinase 5. *Nature* 371: 419-423.

## CHROMOSOMAL LOCATION

Genetic locus: CDK5R1 (human) mapping to 17q11.2; Cdk5r1 (mouse) mapping to 11 B5.

## SOURCE

p35 (H-72) is a rabbit polyclonal antibody raised against amino acids 69-140 mapping near the N-terminus of p35 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

p35 (H-72) is recommended for detection of p35 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p35 (H-72) is also recommended for detection of p35 in additional species, including equine, canine, bovine and porcine.

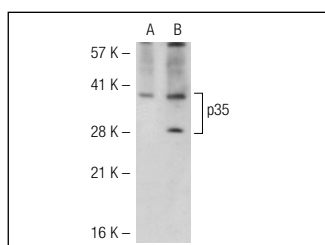
Suitable for use as control antibody for p35 siRNA (h): sc-36153, p35 siRNA (m): sc-36154, p35 shRNA Plasmid (h): sc-36153-SH, p35 shRNA Plasmid (m): sc-36154-SH, p35 shRNA (h) Lentiviral Particles: sc-36153-V and p35 shRNA (m) Lentiviral Particles: sc-36154-V.

Molecular Weight of p35 truncated form: 25 kDa.

Molecular Weight of full length p35 precursor: 35 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 nuclear extract: sc-2122 or p35 (h): 293T Lysate: sc-113375.

## DATA



p35 (H-72): sc-5614. Western blot analysis of p35 expression in non-transfected: sc-117752 (A) and human p35 transfected: sc-113375 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Fischer, A., et al. 2002. Cyclin-dependent kinase 5 is required for associative learning. *J. Neurosci.* 22: 3700-3708.
2. Busso, C.S., et al. 2011. Ubiquitination of human AP-endonuclease 1 (APE1) enhanced by T233E substitution and by CDK5. *Nucleic Acids Res.* 39: 8017-8028.

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Try **p35 (4G11): sc-293184**, our highly recommended monoclonal alternative to p35 (H-72).