

# p39 (N-16): sc-18943

## BACKGROUND

Cyclin dependent kinases, known as Cdks, regulate transitions in the eukaryotic cell cycle. Cdk 5 is required for proper development of the mammalian central nervous system and is predominantly expressed in neurons. Neuronal Cdk5 can be activated by two accessory proteins designated p35<sup>nck5a</sup> and p39<sup>nck5ai</sup>, which is also known as p39. The human p39 gene maps to chromosome 2q35 and encodes a 367-amino acid protein. p35 and p39 both share limited similarity to cyclins and may define a distinct family of cyclin-dependent kinase activating proteins. During embryonic rat brain development, the expression pattern of p39 appears to have an inverse relationship to that of Cdk5 and p35, suggesting that these proteins may have region-specific and developmental stage-specific functions in rat brain. p39 can localize to lamellipodial and filopodial structures of cells and in growth cones of neurons. In addition, p39 can colocalize with actin, suggesting that p39 plays a role in regulating actin cytoskeletal dynamics in cells. The temporal and spatial expression of p39 in synaptic junctions indicates a possible role of the p39/cdk5 kinase at the synapse.

## CHROMOSOMAL LOCATIONS

Genetic locus: CDK5R2 (human) mapping to 2q35; Cdk5r2 (mouse) mapping to 1 C3.

## SOURCE

p39 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of p39 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.

Blocking peptide available for competition studies, sc-18943 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

p39 (N-16) is recommended for detection of p39 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).

p39 (N-16) is also recommended for detection of p39 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for p39 siRNA (h): sc-42156, p39 siRNA (m): sc-42157, p39 shRNA Plasmid (h): sc-42156-SH, p39 shRNA Plasmid (m): sc-42157-SH, p39 shRNA (h) Lentiviral Particles: sc-42156-V and p39 shRNA (m) Lentiviral Particles: sc-42157-V.

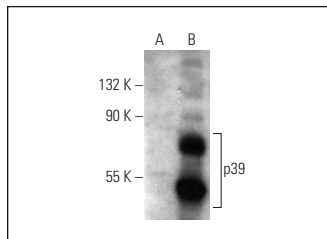
Molecular Weight of p39: 39 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



p39 (N-16): sc-18943. Western blot analysis of p39 expression in non-transfected CHO (A) and mouse p39 transfected CHO (B) whole cell lysates.

## 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.


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Try **p39 (F-4): sc-365781** or **p39 (D-9): sc-374030**, our highly recommended monoclonal alternatives to p39 (N-16).