SANTA CRUZ BIOTECHNOLOGY, INC.

p35 (C-3): sc-518010

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. and Kirschner, M.W. 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. and Hunter, T. 1990. Cdc2 p34: 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.

CHROMOSOMAL LOCATION

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

SOURCE

p35 (C-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 282-307 at the C-terminus of p35 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p35 (C-3) is available conjugated to agarose (sc-518010 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518010 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518010 PE), fluorescein (sc-518010 FITC), Alexa Fluor® 488 (sc-518010 AF488), Alexa Fluor® 546 (sc-518010 AF546), Alexa Fluor® 594 (sc-518010 AF594) or Alexa Fluor® 647 (sc-518010 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518010 AF680) or Alexa Fluor® 790 (sc-518010 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

p35 (C-3) is recommended for detection of p25 and p35 regulatory subunits of Cdk5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

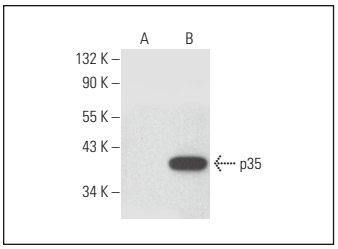
Molecular Weight of full length p35 precursor: 35 kDa.

Positive Controls: mouse p35 transfected HEK293T whole cell lysate.

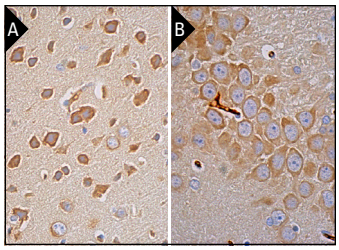
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



p35 (C-3): sc-518010. Western blot analysis of p35 expression in non-transfected (**A**) and mouse p35 transfected (**B**) HEK293T whole cell lysates.



p35 (C-3): sc-518010. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse brain tissue showing cytoplasmic staining of neuronal cells, glial cells and endothelial cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat brain tissue showing cytoplasmic staining of neuronal cells and endothelial cells (**B**).

RESEARCH USE

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