SANTA CRUZ BIOTECHNOLOGY, INC.

p35 (B-1): sc-518009

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.

CHROMOSOMAL LOCATION

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

SOURCE

p35 (B-1) 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_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p35 (B-1) is available conjugated to agarose (sc-518009 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518009 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518009 PE), fluorescein (sc-518009 FITC), Alexa Fluor® 488 (sc-518009 AF488), Alexa Fluor® 546 (sc-518009 AF546), Alexa Fluor® 594 (sc-518009 AF594) or Alexa Fluor® 647 (sc-518009 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518009 AF680) or Alexa Fluor® 790 (sc-518009 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

p35 (B-1) 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.

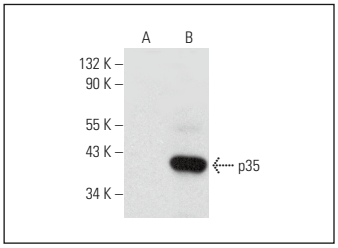
Molecular Weight of full length p35 precursor: 35 kDa.

Positive Controls: mouse p35 transfected HEK293T whole cell lysate.

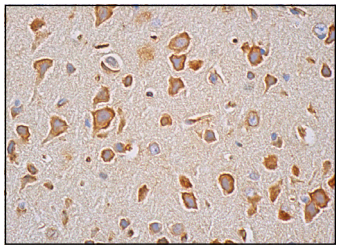
RECOMMENDED SUPPORT REAGENTS

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 (B-1): sc-518009. Western blot analysis of p35 expression in non-transfected (**A**) and mouse p35 transfected (**B**) HEK293T whole cell lysates.



p35 (B-1): sc-518009. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse brain tissue showing cytoplasmic staining of neuronal cells, glial cells and endothelial cells.

SELECT PRODUCT CITATIONS

1. Zhong, Y., et al. 2019. Crosstalk between Cdk5/p35 and ERK1/2 signalling mediates spinal astrocyte activity via the PPARγ pathway in a rat model of chronic constriction injury. J. Neurochem. 151: 166-184.
2. Myrup Holst, C., et al. 2023. Phosphorylation of the human DNA glycosylase NEIL2 is affected by oxidative stress and modulates its activity. Antioxidants 12: 355.

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 for detailed protocols and support products.