SANTA CRUZ BIOTECHNOLOGY, INC.

CDK5RAP1 (K-16): sc-85470

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The Power to Question

BACKGROUND

Cyclin dependent kinase 5 (Cdk5) is a key regulator of cell cycle progression in neuronal differentiation that physically associates with and is activated by the neuron-specific protein p35. CDK5RAP1 (Cdk5 regulatory subunit-associated protein 1), also known as Cdk5 activator-binding protein C42, is a 601 amino acid protein that specifically inhibits Cdk5 activation by p35 through formation of a dimer that inhibits kinase activity. CDK5RAP1 contains one TRAM domain, which is thought to bind tRNA and deliver the RNA-modifying enzymatic domain to its target. There are four named isoforms of CDK5RAP1 that are produced as a result of alternative splicing events and are expressed at high levels in heart and skeletal muscle.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CDK5RAP1 (human) mapping to 20q11.21; Cdk5rap1 (mouse) mapping to 2 H1.

SOURCE

CDK5RAP1 (K-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CDK5RAP1 of human origin.

STORAGE

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

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-85470 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CDK5RAP1 (K-16) is recommended for detection of CDK5RAP1 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).

CDK5RAP1 (K-16) is also recommended for detection of CDK5RAP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CDK5RAP1 siRNA (h): sc-72846, CDK5RAP1 siRNA (m): sc-142226, CDK5RAP1 shRNA Plasmid (h): sc-72846-SH, CDK5RAP1 shRNA Plasmid (m): sc-142226-SH, CDK5RAP1 shRNA (h) Lentiviral Particles: sc-72846-V and CDK5RAP1 shRNA (m) Lentiviral Particles: sc-142226-V.

Molecular Weight of CDK5RAP1: 68 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.