

CDK5RAP3 (T-15): sc-164021

BACKGROUND

CDK5RAP3 (cyclin dependent kinase 5 regulatory subunit-associated protein 3), also designated C53 or IC53, may be involved in neuronal differentiation, cell proliferation and DNA repair. The role CDK5RAP3 plays in neuronal differentiation may be attributed to its interaction with the Cdk5 activator protein called p35. p35 physically associates with Cdk5 to activate enzymatic activity. Cdk5 activity increases significantly during neuronal differentiation. Upon transfection, CDK5RAP3 is capable of increasing the rate of cell proliferation, suggesting that it may play a role in tumorigenesis. CDK5RAP3 is a regulatory component of the G₂/M DNA damage checkpoint in response to genotoxic stress. CDK5RAP3 is expressed in brain, heart, placenta, liver, skeletal muscle, lung, kidney and pancreas and is overexpressed in tumor tissue. Three named isoforms exist for CDK5RAP3 as a result of alternative splicing events. CDK5RAP3 contains two leucine zipper motifs, putative phosphorylation and potential N-myristoylation sites.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CDK5RAP3 (human) mapping to 17q21.32; Cdk5rap3 (mouse) mapping to 11 D.

SOURCE

CDK5RAP3 (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CDK5RAP3 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-164021 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CDK5RAP3 (T-15) is recommended for detection of CDK5RAP3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with CDK5RAP1 or CDK5RAP2.

CDK5RAP3 (T-15) is also recommended for detection of CDK5RAP3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CDK5RAP3 siRNA (h): sc-93759, CDK5RAP3 siRNA (m): sc-142227, CDK5RAP3 shRNA Plasmid (h): sc-93759-SH, CDK5RAP3 shRNA Plasmid (m): sc-142227-SH, CDK5RAP3 shRNA (h) Lentiviral Particles: sc-93759-V and CDK5RAP3 shRNA (m) Lentiviral Particles: sc-142227-V.

Molecular Weight of CDK5RAP3: 57 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

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) 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.

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.