SANTA CRUZ BIOTECHNOLOGY, INC.

Dyrk3 (L-14): sc-31976

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Dyrk (for dual specificity tyrosine phosphorylation regulated kinase) is the homolog of the *Drosophila* mnb (minibrain) gene, which is required for neurogenesis. Dyrk is a dual-specificity tyrosine kinase and serine/threonine kinase, which is itself regulated by tyrosine phosphorylation. Several mammalian Dyrk related proteins have been identified and are thought to compose a family of dual specificity protein kinases. Dyrk family members, including Dyrk1A (originally Dyrk), Dyrk1B, Dryk1C, Dyrk2, Dyrk3, Dyrk4A and Dyrk4B, are thought to be involved in diverse cellular functions. Dyrk1A is a candidate gene that may be involved in Down syndrome, and it has been found to be somewhat overexpressed in Down syndrome. Two isoforms of human fetal brain Dyrk2 exist: a deduced 528 amino acid protein and a protein containing 73 additional amino acids at the amino terminus. Dyrk3 is strongly expressed in testis, only after the onset of spermatogenesis, and very weakly expressed in spleen and adrenal gland. The genes which encode Dyrk2 and Dyrk3 map to human chromosomes 12 and 1q32, respectively.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DYRK3 (human) mapping to 1q32.1; Dyrk3 (mouse) mapping to 1 E4.

SOURCE

Dyrk3 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Dyrk3 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-31976 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dyrk3 (L-14) is recommended for detection of Dyrk3 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).

Dyrk3 (L-14) is also recommended for detection of Dyrk3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dyrk3 siRNA (h): sc-39010, Dyrk3 siRNA (m): sc-44589, Dyrk3 shRNA Plasmid (h): sc-39010-SH, Dyrk3 shRNA Plasmid (m): sc-44589-SH, Dyrk3 shRNA (h) Lentiviral Particles: sc-39010-V and Dyrk3 shRNA (m) Lentiviral Particles: sc-44589-V.

Molecular Weight of Dyrk3: 70 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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.

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 or our catalog for detailed protocols and support products.