SANTA CRUZ BIOTECHNOLOGY, INC.

Dyrk1B (H-45): sc-98507

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 self regulated by tyrosine phosphorylation. Several related mammalian proteins compose the Dyrk family of dual specificity protein kinases, including Dyrk1A, Dyrk1B, Dyrk1C, Dyrk2, Dyrk3, Dyrk4A and Dyrk4B. The Dyrk family members are thought to be involved in the regulation of cellular growth and/or development. Dyrk1B localizes to the nucleus in muscle and testis. Specifically, Dyrk1B plays a critical role in muscle differentiation by regulating motility, transcription, cell cycle progression and cell survival. Dyrk1B is also found is several solid tumors, where it acts as a downstream effector of Rac1 or K-ras to mediate cell survival.

CHROMOSOMAL LOCATION

Genetic locus: DYRK1B (human) mapping to 19q13.2; Dyrk1b (mouse) mapping to 7 A3.

SOURCE

Dyrk1B (H-45) is a rabbit polyclonal antibody raised against amino acids 1-45 mapping at the N-terminus of Dyrk1B 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.

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.

APPLICATIONS

Dyrk1B (H-45) is recommended for detection of Dyrk1B 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).

Dyrk1B (H-45) is also recommended for detection of Dyrk1B in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Dyrk1B siRNA (h): sc-77210, Dyrk1B siRNA (m): sc-77211, Dyrk1B shRNA Plasmid (h): sc-77210-SH, Dyrk1B shRNA Plasmid (m): sc-77211-SH, Dyrk1B shRNA (h) Lentiviral Particles: sc-77210-V and Dyrk1B shRNA (m) Lentiviral Particles: sc-77211-V.

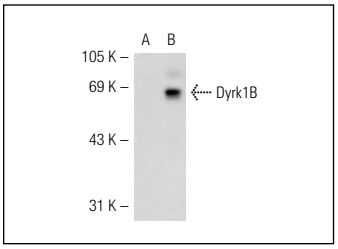
Molecular Weight of Dyrk1B: 69/66/65 kDa.

Positive Controls: Dyrk1B (h3): 293T Lysate: sc-158463, Sol8 cell lysate: sc-2249 or Hep G2 cell lysate: sc-2227.

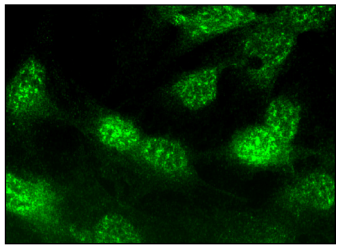
RECOMMENDED SECONDARY REAGENTS

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.

DATA



Dyrk1B (H-45): sc-98507. Western blot analysis of Dyrk1B expression in non-transfected: sc-117752 (**A**) and human Dyrk1B transfected: sc-158463 (**B**) 293T whole cell lysates.



Dyrk1B (H-45): sc-98507. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **Dyrk1B (H-6): sc-390417** or **Dyrk1B (B-9): sc-377137**, our highly recommended monoclonal alternatives to Dyrk1B (H-45).