

Dyrk2 (H-80): sc-66867

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, Dyrk1C, 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 over-expressed 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 12q15 and 1q32, respectively.

CHROMOSOMAL LOCATION

Genetic locus: DYRK2 (human) mapping to 12q15; Dyrk2 (mouse) mapping to 10 D2.

SOURCE

Dyrk2 (H-80) is a rabbit polyclonal antibody raised against amino acids 1-80 mapping at the N-terminus of Dyrk2 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.

RESEARCH USE

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

APPLICATIONS

Dyrk2 (H-80) is recommended for detection of Dyrk2 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), 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).

Dyrk2 (H-80) is also recommended for detection of Dyrk2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dyrk2 siRNA (h): sc-39009, Dyrk2 siRNA (m): sc-44588, Dyrk2 shRNA Plasmid (h): sc-39009-SH, Dyrk2 shRNA Plasmid (m): sc-44588-SH, Dyrk2 shRNA (h) Lentiviral Particles: sc-39009-V and Dyrk2 shRNA (m) Lentiviral Particles: sc-44588-V.

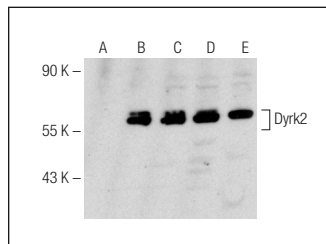
Molecular Weight of Dyrk2 isoforms 1/2: 67/60 kDa.

Positive Controls: Dyrk2 (h): 293T Lysate: sc-158464, K-562 whole cell lysate: sc-2203 or PC-3 cell lysate: sc-2220.

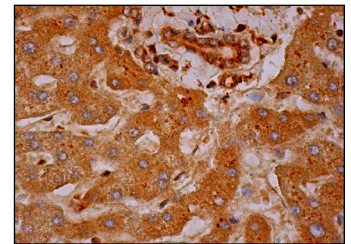
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Dyrk2 (H-80): sc-66867. Western blot analysis of Dyrk2 expression in non-transfected 293T: sc-117752 (A), human Dyrk2 transfected 293T: sc-158464 (B), K-562 (C), PC-3 (D) and SK-MEL-28 (E) whole cell lysates.



Dyrk2 (H-80): sc-66867. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes and bile duct cells.

SELECT PRODUCT CITATIONS

1. Tun, A.W., et al. 2014. Profiling the mitochondrial proteome of Leber's Hereditary Optic Neuropathy (LHON) in Thailand: down-regulation of bioenergetics and mitochondrial protein quality control pathways in fibroblasts with the 11778G>A mutation. PLoS ONE 9: e106779.

STORAGE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Dyrk2 (6E2): sc-293487**, our highly recommended monoclonal alternative to Dyrk2 (H-80).