SANTA CRUZ BIOTECHNOLOGY, INC.

SRPK1 (H-40): sc-50343

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Arginine/serine-rich (RS) domain-containing proteins and their phosphorylation by specific protein kinases constitute control circuits to regulate both constitutive and alternative pre-mRNA splicing and coordinate splicing with transcription in cells. Two SR protein-specific kinases (SRPK, also designated SFRSK), SRPK1 and SRPK2, are highly specific for the phosphorylation of these RS proteins, thereby contributing to splicing regulation. SRPK1 plays a role in the condensation of sperm chromatin. SRPK2 has a stringent preference for SR dipeptides and contains a proline-rich sequence at its amino terminus. Both SRPK1 and SRPK2 are highly expresed in testis. SRPK1 is found exclusively in pancreas and SRPK2 is found exclusively in brain and lung.

REFERENCES

1. Kuroyanagi, N., et al. 1998. Novel SR-protein-specific kinase, SRPK2, disassembles nuclear speckles. Biochem. Biophys. Res. Commun. 242: 357-364.
2. Wang, H.Y., et al. 1998. SRPK2: a differentially expressed SR protein-specific kinase involved in mediating the interaction and localization of pre-mRNA splicing factors in mammalian cells. J. Cell Biol. 140: 737-750.

CHROMOSOMAL LOCATION

Genetic locus: SRPK1 (human) mapping to 6p21.31; Srpk1 (mouse) mapping to 17 A3.3.

SOURCE

SRPK1 (H-40) is a rabbit polyclonal antibody raised against amino acids 176-215 mapping within an internal region of SRPK1 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.

APPLICATIONS

SRPK1 (H-40) is recommended for detection of SRPK1 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).

SRPK1 (H-40) is also recommended for detection of SRPK1 in additional species, including canine and porcine.

Suitable for use as control antibody for SRPK1 siRNA (h): sc-39235, SRPK1 siRNA (m): sc-39236, SRPK1 shRNA Plasmid (h): sc-39235-SH, SRPK1 shRNA Plasmid (m): sc-39236-SH, SRPK1 shRNA (h) Lentiviral Particles: sc-39235-V and SRPK1 shRNA (m) Lentiviral Particles: sc-39236-V.

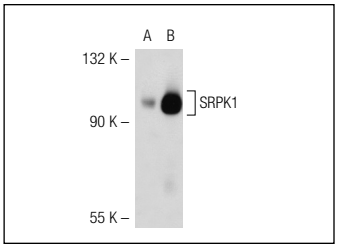
Molecular Weight of SRPK1: 106 kDa.

Positive Controls: SRPK1 (m): 293T Lysate: sc-123782, mouse testis extract: sc-2405 or mouse brain extract: sc-2253.

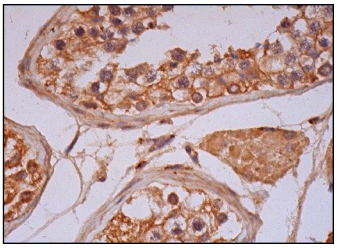
RECOMMENDED SECONDARY REAGENTS

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



SRPK1 (H-40): sc-50343. Western blot analysis of SRPK1 expression in non-transfected: sc-117752 (**A**) and mouse SRPK1 transfected: sc-123782 (**B**) 293T whole cell lysates.



SRPK1 (H-40): sc-50343. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic, membrane and nuclear staining of cells in seminiferous ducts and cytoplasmic and nuclear staining of Leydig cells.

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.