

SRPK2 (A-5): sc-390930



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. SRPK1 and SRPK2 are highly expressed in brain, moderately expressed in heart and skeletal muscle and at low levels in lung, liver, and kidney.

REFERENCES

1. Wang, H.Y., Lin, W., Dyck, J.A., Yeakley, J.M., Songyang, Z., Cantley, L.C. and Fu, X.D. 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.
2. Kuroyanagi, N., Onogi, H., Wakabayashi, T. and Hagiwara, M. 1998. Novel SR-protein-specific kinase, SRPK2, disassembles nuclear speckles. *Biochem. Biophys. Res. Commun.* 242: 357-364.
3. Papoutsopoulos, S., Nikolakaki, E., Chalepakidis, G., Kruff, V., Chevallier, P. and Giannakourou, T. 1999. SR protein-specific kinase 1 is highly expressed in testis and phosphorylates protamine 1. *Nucleic Acids Res.* 27: 2972-2980.
4. Wang, H.Y., Arden, K.C., Bermingham, J.R. Jr., Viars, C.S., Lin, W., Boyer, A.D. and Fu, X.D. 1999. Localization of serine kinases, SRPK1 (SFRSK1) and SRPK2 (SFRSK2), specific for the SR family of splicing factors in mouse and human chromosomes. *Genomics* 57: 310-315.
5. Tang, Z., Kuo, T., Shen, J. and Lin, R.J. 2000. Biochemical and genetic conservation of fission yeast Dsk1 and human SR protein-specific kinase 1. *Mol. Cell. Biol.* 20: 816-824.

CHROMOSOMAL LOCATION

Genetic locus: SRPK2 (human) mapping to 7q22.3; Srp2 (mouse) mapping to 5 A3.

SOURCE

SRPK2 (A-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 10-37 at the N-terminus of SRPK2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390930 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

SRPK2 (A-5) is recommended for detection of SRPK2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

SRPK2 (A-5) is also recommended for detection of SRPK2 in additional species, including canine and porcine.

Suitable for use as control antibody for SRPK2 siRNA (h): sc-39237, SRPK2 siRNA (m): sc-39238, SRPK2 siRNA (r): sc-270185, SRPK2 shRNA Plasmid (h): sc-39237-SH, SRPK2 shRNA Plasmid (m): sc-39238-SH, SRPK2 shRNA Plasmid (r): sc-270185-SH, SRPK2 shRNA (h) Lentiviral Particles: sc-39237-V, SRPK2 shRNA (m) Lentiviral Particles: sc-39238-V and SRPK2 shRNA (r) Lentiviral Particles: sc-270185-V.

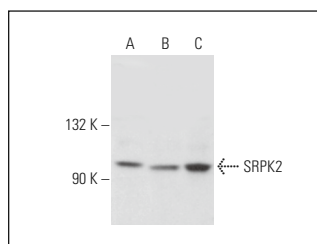
Molecular Weight of SRPK2: 120 kDa.

Positive Controls: SRPK2 (h): 293T Lysate: sc-113878, Jurkat nuclear extract: sc-2132 or HeLa whole cell lysate: sc-2200.

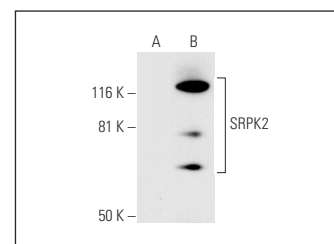
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SRPK2 (A-5): sc-390930. Western blot analysis of SRPK2 expression in HeLa (A) and A2058 (B) whole cell lysates and Jurkat nuclear extract (C).



SRPK2 (A-5): sc-390930. Western blot analysis of SRPK2 expression in non-transfected: sc-117752 (A) and human SRPK2 transfected: sc-113878 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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