

SRPK (A-17): sc-11306

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 expressed in testes. SRPK1 is found exclusively in pancreas and SRPK2 is found exclusively in brain and lung.

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. Papoutsopoulou, S., Nikolakaki, E., Chalepakis, G., Kruff, V., Chevaillier, 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.

SOURCE

SRPK (A-17) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-11306 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

SRPK (A-17) is recommended for detection of SRPK1, SRPK2 and SRPK3 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).

SRPK (A-17) is also recommended for detection of SRPK1, SRPK2 and SRPK3 in additional species, including equine, canine, bovine, porcine and avian.

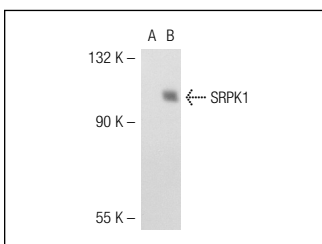
Molecular Weight of SRPK: 82 kDa.

Positive Controls: SRPK1 (m): 293T Lysate: sc-123782.

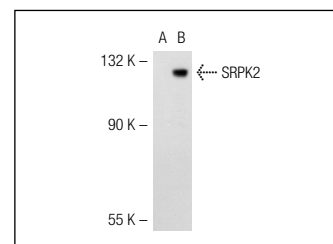
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



SRPK (A-17): sc-11306. Western blot analysis of SRPK1 expression in non-transfected: sc-117752 (A) and mouse SRPK1 transfected: sc-123782 (B) 293T whole cell lysates.



SRPK (A-17): sc-11306. Western blot analysis of SRPK2 expression in non-transfected: sc-117752 (A) and mouse SRPK2 transfected: sc-123783 (B) 293T whole cell lysates.

RESEARCH USE

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


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Try **SRPK (D-7): sc-398432** or **SRPK1 (EE-13): sc-100443**, our highly recommended monoclonal alternatives to SRPK (A-17).