

# SRPK2 (S-15): sc-11307

## 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.

## CHROMOSOMAL LOCATIONS

Genetic locus: SRPK2 (human) mapping to 7q22.3; Srpk2 (mouse) mapping to 5 A3.

## SOURCE

SRPK2 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SRPK2 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-11307 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.

## APPLICATIONS

SRPK2 (S-15) is recommended for detection of SRPK2 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).

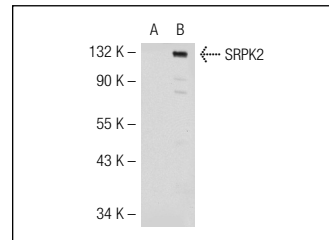
SRPK2 (S-15) is also recommended for detection of SRPK2 in additional species, including canine and porcine.

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

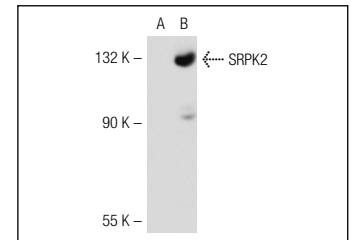
Molecular Weight of SRPK2: 120 kDa.

Positive Controls: mouse brain extract: sc-2253, mouse testis extract: sc-2405 or SRPK2 (m): 293T Lysate: sc-113878.

## DATA



SRPK2 (S-15): sc-11307. Western blot analysis of SRPK2 expression in non-transfected: sc-117752 (A) and human SRPK2 transfected: sc-113878 (B) 293T whole cell lysates.



SRPK2 (S-15): sc-11307. 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **SRPK2 (H-5): sc-390534** or **SRPK2 (A-5): sc-390930**, our highly recommended monoclonal alternatives to SRPK2 (S-15).