



SRPK1 (m): 293T Lysate: sc-123782

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., Chevallier, P. and Giannakouros, 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: *Srpk1* (mouse) mapping to 17 A3.3.

PRODUCT

SRPK1 (m): 293T Lysate represents a lysate of mouse SRPK1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

SRPK1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SRPK1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.