# **Technical Data Sheet**

# **Purified Mouse Anti-SRPK1**

#### **Product Information**

Material Number:611072Size: $50 \mu g$ Concentration: $250 \mu g/ml$ Clone:12/SRPK1

Immunogen: Human SRPK1 aa.312-434

 Isotype:
 Mouse IgG1

 Reactivity:
 QC Testing: Human

Tested in Development: Dog, Rat, Mouse

Target MW: 92 kD

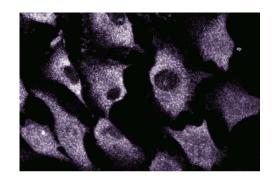
**Storage Buffer:** Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium

azide.

### Description

Mammalian cell pre-mRNA splicing is mediated by the spliceosome, a multi-component complex that contains two types of splicing factors: small nuclear ribonucleoprotein particles (snRNPs) and non-snRNP factors. Interactions between snRNPs and pre-mRNA ensures proper establishment of a catalytic core for the splicing reaction. However, these interactions are mediated by the non-snRNP factors. The super family of Arg/Ser-rich (RS) domain containing splicing factors are well known non-snRNPs. All of these proteins share a similar structure consisting of an N-terminal RNA recognition motif and a C-terminal RS domain. However, different SR factors have distinct specificities and function is regulated by their level of expression and by reversible phosphorylation. Two families of kinases phosphorylate SR domain-containing proteins: SR protein-specific kinases (SRPK1 and 2) and Clk/Sty. SRPL1 is specific for SR domain-containing splicing factors because it recognizes only Arg and phosphorylates only Ser. SRPK1 is expressed predominately in the pancreas, domain-containing splicing factors because it recognizes only Arg and phosphorylates only Ser. SRPK1 is expressed predominately in the pancreas, whereas SRPK2 is highly expressed in brain. SRPKs affect splice-site selection and are thought to affect alternative splicing.





Western blot analysis of SRPK1 on HeLa cell lysate. Lane 1:1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of anti-SRPK1. Immunofluorescent staining of EaHy cells.

## **Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

### **BD Biosciences**

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### **Application Notes**

### Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

### **Recommended Assay Procedure:**

 $We stern\ blot:\ Please\ refer\ to\ http://www.bdbiosciences.com/pharmingen/protocols/We stern\_Blotting.shtml.$ 

### **Suggested Companion Products**

Catalog Number	Name	Size	Clone	
611449	HeLa Cell Lysate	500 μg	(none)	
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)	
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal	

### **Product Notices**

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
- 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

### References

Colwill K, Feng LL, Yeakley JM. SRPK1 and Clk/Sty protein kinases show distinct substrate specificities for serine/arginine-rich splicing factors. *J Biol Chem.* 1996; 271(40):24569-24575.(Biology)

Wang HY, Lin W, Dyck JA. 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.* 1998; 140(4):737-750.(Biology)

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