antibodies - online.com







anti-SRPK1 antibody (C-Term)



Image



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Quantity:	100 μL	
Target:	SRPK1	
Binding Specificity:	C-Term	
Reactivity:	Human, Mouse, Rat	
Host:	Rabbit	
Clonality:	Polyclonal	
Application:	Western Blotting (WB), ELISA	
Product Details		
Immunogen:	A synthesized peptide derived from human SRPK1, corresponding to a region within C-terminal amino acids.	
Isotype:	IgG	
Specificity:	SRPK1 Antibody detects endogenous levels of total SRPK1.	
Predicted Reactivity:	Pig,Bovine,Horse,Sheep,Rabbit,Dog,Chicken,Xenopus	
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink TM Coupling Resin (Thermo Fisher Scientific).	
Target Details		
Target:	SRPK1	
Alternative Name:	SRPK1 (SRPK1 Products)	

Background:

Description: Serine/arginine-rich protein-specific kinase which specifically phosphorylates its substrates at serine residues located in regions rich in arginine/serine dipeptides, known as RS domains and is involved in the phosphorylation of SR splicing factors and the regulation of splicing. Plays a central role in the regulatory network for splicing, controlling the intranuclear distribution of splicing factors in interphase cells and the reorganization of nuclear speckles during mitosis. Can influence additional steps of mRNA maturation, as well as other cellular activities, such as chromatin reorganization in somatic and sperm cells and cell cycle progression. Isoform 2 phosphorylates SFRS2, ZRSR2, LBR and PRM1. Isoform 2 phosphorylates SRSF1 using a directional (C-terminal to N-terminal) and a dual-track mechanism incorporating both processive phosphorylation (in which the kinase stays attached to the substrate after each round of phosphorylation) and distributive phosphorylation steps (in which the kinase and substrate dissociate after each phosphorylation event). The RS domain of SRSF1 binds first to a docking groove in the large lobe of the kinase domain of SRPK1. This induces certain structural changes in SRPK1 and/or RRM2 domain of SRSF1, allowing RRM2 to bind the kinase and initiate phosphorylation. The cycles continue for several phosphorylation steps in a processive manner (steps 1-8) until the last few phosphorylation steps (approximately steps 9-12). During that time, a mechanical stress induces the unfolding of the beta-4 motif in RRM2, which then docks at the docking groove of SRPK1. This also signals RRM2 to begin to dissociate, which facilitates SRSF1 dissociation after phosphorylation is completed. Isoform 2 can mediate hepatitis B virus (HBV) core protein phosphorylation. It plays a negative role in the regulation of HBV replication through a mechanism not involving the phosphorylation of the core protein but by reducing the packaging efficiency of the pregenomic RNA (pgRNA) without affecting the formation of the viral core particles. Isoform 1 and isoform 2 can induce splicing of exon 10 in MAPT/TAU. The ratio of isoform 1/isoform 2 plays a decisive role in determining cell fate in K-562 leukaemic cell line: isoform 2 favors proliferation where as isoform 1 favors differentiation.

Gene: SRPK1

Molecular Weight:

95 kDa

Gene ID:

6732

UniProt:

Q96SB4

Pathways:

Toll-Like Receptors Cascades

Application Details

Application Notes:

WB 1:500-1:1000, ELISA(peptide) 1:20000-1:40000

Application Details

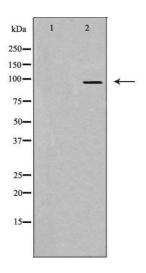
Restrictions:

Handling

Format:	Liquid	
Concentration:	1 mg/mL	
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.	
Preservative:	Sodium azide	
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.	
Storage:	-20 °C	
Storage Comment:	Store at -20 °C. Stable for 12 months from date of receipt.	
Expiry Date:	12 months	

For Research Use only

Images



Western Blotting

Image 1. Western blot analysis of extracts from K562 cells using SRPK1 antibody. The lane on the left is treated with the antigen-specific peptide.