

Datasheet for ABIN7170676
anti-SRPK1 antibody (AA 290-480)[Go to Product page](#)

3 Images

Overview

Quantity:	100 µL
Target:	SRPK1
Binding Specificity:	AA 290-480
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SRPK1 antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Recombinant Human SRSF protein kinase 1 protein (290-480AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Antigen Affinity Purified

Target Details

Target:	SRPK1
Alternative Name:	SRPK1 (SRPK1 Products)
Background:	Background: 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.

Aliases: Serine/arginine rich protein specific kinase 1 antibody, Serine/arginine rich splicing factor kinase 1 antibody, Serine/arginine-rich protein-specific kinase 1 antibody, Serine/threonine protein kinase SRPK1 antibody, Serine/threonine-protein kinase SRPK1 antibody, SFRS protein kinase 1 antibody, SFRSK1 antibody, SR protein kinase 1 antibody, SR protein specific kinase 1 antibody, SR-protein-specific kinase 1 antibody, SRPK1 antibody, SRPK1_HUMAN antibody

UniProt: [Q96SB4](#)

Pathways: [Toll-Like Receptors Cascades](#)

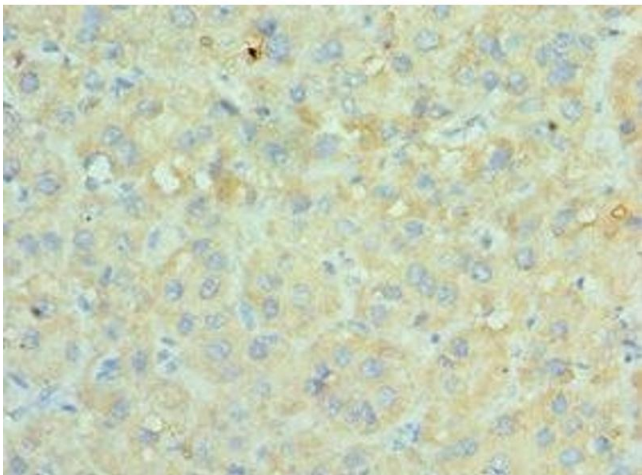
Application Details

Application Notes: Recommended dilution: IHC:1:20-1:200,

Application Details

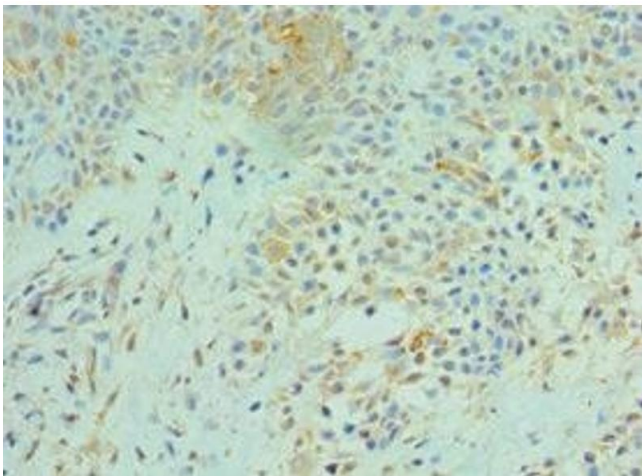
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	PBS with 0.02 % sodium azide, 50 % glycerol, pH 7.3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



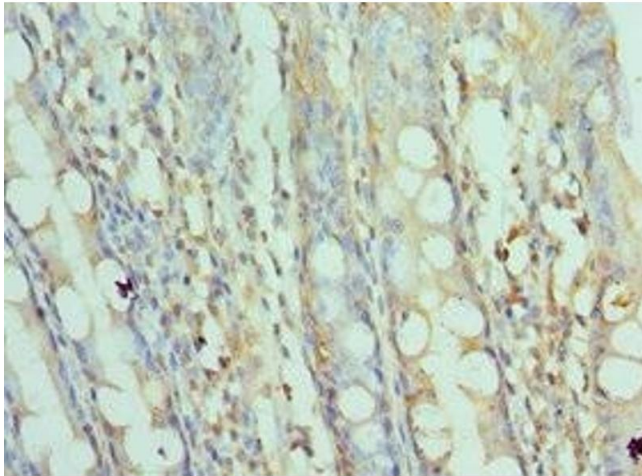
Immunohistochemistry

Image 1. Immunohistochemistry of paraffin-embedded human liver cancer using ABIN7170676 at dilution of 1:100



Immunohistochemistry

Image 2. Immunohistochemistry of paraffin-embedded human breast cancer using ABIN7170676 at dilution of 1:100



Immunohistochemistry

Image 3. Immunohistochemistry of paraffin-embedded human colon tissue using ABIN7170676 at dilution of 1:100