

SRPK2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP7553b

Specification

SRPK2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession [P78362](#)

SRPK2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 6733

Other Names

SRSF protein kinase 2, SFRS protein kinase 2, Serine/arginine-rich protein-specific kinase 2, SR-protein-specific kinase 2, SRSF protein kinase 2 N-terminal, SRSF protein kinase 2 C-terminal, SRPK2 {ECO:0000312|EMBL:AAH685471}

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7553b](#) was selected from the C-term region of human SRPK2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SRPK2 Antibody (C-term) Blocking Peptide - Protein Information

Name SRPK2 {ECO:0000312|EMBL:AAH68547.1}

Function

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 (PubMed:[18559500](http://www.uniprot.org/citations/18559500), PubMed:[21056976](http://www.uniprot.org/citations/21056976), PubMed:[9472028](http://www.uniprot.org/citations/9472028)). Promotes neuronal apoptosis by up-regulating cyclin-D1 (CCND1) expression (PubMed:[19592491](http://www.uniprot.org/citations/19592491)). This is done by the phosphorylation of SRSF2, leading to the suppression of p53/TP53 phosphorylation thereby relieving the repressive effect of p53/TP53 on cyclin-D1 (CCND1) expression (PubMed:[10320 Camino Santa Fe, Suite A](#)

href="http://www.uniprot.org/citations/21205200" target="_blank">21205200

Phosphorylates ACIN1, and redistributes it from the nuclear speckles to the nucleoplasm, resulting in cyclin A1 but not cyclin A2 up-regulation (PubMed:18559500). Plays an essential role in spliceosomal B complex formation via the phosphorylation of DDX23/PRP28 (PubMed:18425142). Probably by phosphorylating DDX23, leads to the suppression of incorrect R-loops formed during transcription; R-loops are composed of a DNA:RNA hybrid and the associated non-template single-stranded DNA (PubMed:28076779). Can mediate hepatitis B virus (HBV) core protein phosphorylation (PubMed:12134018). 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 (PubMed:16122776). Phosphorylates the N-terminus of ERC1 (By similarity).

Cellular Location

Cytoplasm. Nucleus, nucleoplasm. Nucleus speckle. Chromosome. Note=Shuttles between the nucleus and the cytoplasm (PubMed:19592491, PubMed:21056976, PubMed:21157427) KAT5/TIP60 inhibits its nuclear translocation (PubMed:21157427) Phosphorylation at Thr-492 by PKB/AKT1 promotes nuclear translocation (PubMed:19592491). Preferentially localizes across the entire gene coding region (PubMed:28076779). During transcription, accumulates at chromatin loci where unscheduled R-loops form and colocalizes with paused 'Ser-5'-phosphorylated POLR2A/RNA polymerase II and helicase DDX23 (PubMed:28076779).

Tissue Location

Highly expressed in brain, moderately expressed in heart and skeletal muscle and at low levels in lung, liver, and kidney

SRPK2 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

SRPK2 Antibody (C-term) Blocking Peptide - Images

SRPK2 Antibody (C-term) Blocking Peptide - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the γ phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.

SRPK2 Antibody (C-term) Blocking Peptide - References

Blume-Jensen P, et al. *Nature* 2001. 411: 355.Cantrell D, *J. Cell Sci.* 2001. 114: 1439.Jhiang S *Oncogene* 2000. 19: 5590.Manning G, et al. *Science* 2002. 298: 1912.Moller, D, et al. *Am. J. Physiol.* 1994. 266: C351-C359.Robertson, S. et al. *Trends Genet.* 2000. 16: 368.Robinson D, et al. *Oncogene* 2000. 19: 5548.Van der Ven, P, et al. *Hum. Molec. Genet.* 1993. 2: 1889.Vanhaesebroeck, B, et al. *Biochem. J.* 2000. 346: 561.Van Weering D, et al. *Recent Results Cancer Res.* 1998. 154: 271.