Human SRPK1 Protein (His & GST Tag)

Catalog Number: **12249-H20B**

General Information

Gene Name Synonym:

RP3-422H11.1; SFRSK1

Protein Construction:

A DNA sequence encoding the human SRPK1 (AAH38292.1) (Glu 2-Ser 655) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 80 % as determined by SDS-PAGE

Bio Activity:

No Kinase Activity

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human SRPK1/GST chimera consists of 892 amino acids and has a calculated molecular mass of 102 kDa. It migrates as an approximately 120 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 2mM GSH, 10% gly, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

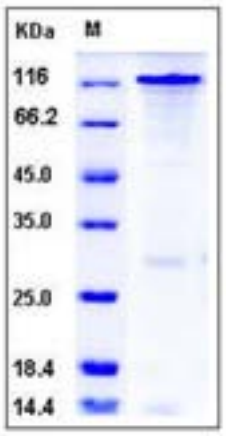
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Serine / threonine-protein kinase SRPK1, also known as SFRS protein kinase 1, Serine/arginine-rich protein-specific kinase 1, SR-protein-specific kinase 1 and SRPK1, is a cytoplasm and nucleus protein which belongs to theprotein kinase superfamily and CMGC Ser/Thr protein kinase family. Isoform 2 of SRPK1 is predominantly expressed in the testis but is also present at lower levels in heart, ovary, small intestine, liver, kidney, pancreas and skeletal muscle. Isoform 1 of SRPK1 is only seen in the testis, at lower levels than isoform 2. SRPK1 hyperphosphorylates RS domain-containing proteins such as SFRS1, SFRS2 and ZRSR2 on serine residues during metaphase but at lower levels during interphase. SRPK1 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. SRPK1 locks onto SFRS1 to form a stable complex and processively phosphorylates the RS domain. SRPK1 appears to mediate HBV core protein phosphorylation which is a prerequisite for pregenomic RNA encapsidation into viral capsids.

References

1.Ngo J.C.K. et al., 2005, Mol. Cell 20:77-89. 2.Krishnakumar,S. et al., 2008, Pediatr Blood Cancer 50 (2):402-6. 3.Ma,C.T. et al., 2009, J Mol Biol 390 (4):618-34.