Recombinant Human SRPK1 Protein (His & GST Tag)

Catalog No. PKSH030864

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Synonyms	RP3-422H11.1;SFRSK1
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Glu 2-Ser 655
Accession	AAH38292.1
Calculated Molecular Weight	102 kDa
Observed molecular weight	120 kDa
Tag	N-His-GST
Bioactivity	Not validated for activity
Properties	
Purity	> 80 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μ g of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% Glycerol, 0.1mMEDTA, 0.5mM PMSF, 1mM TCEP, pH7.5. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	

KDa	MK	R
116		-
66.2	-	
45.0	-	
35.0	-	
25.0	-	- 1
18.4 14.4	=	

> 80 % as determined by reducing SDS-PAGE.

Background

Serine / threonine-protein kinase SRPK1, also known as SFRS protein kinase 1, Serine/arginine-rich protein-specific

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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.