Datasheet for ABIN7564775

SFPQ Protein (AA 1-699) (His tag)

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Overview

Quantity:	1 mg
Target:	SFPQ
Protein Characteristics:	AA 1-699
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SFPQ protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Sfpq Protein expressed in mammalian cells.
Sequence:	MSRDRFRSRG GGGGGFHRRG GGGGRGGLHD FRSPPPGMGL NQNRGPMGPG PGGPKPPLPP PPPHQQQQQP PPQQPPPQQP PPHQQPPPHQ PPHQQPPPPP QESKPVVPQG PGSAPGVSSA PPPAVSAPPA NPPTTGAPPG PGPTPTPPPA VPSTAPGPPP PSTPSSGVST TPPQTGGPPP PPAGGAGPGP KPGPGPGGPK GGKMPGGPKP GGGPGMGAPG GHPKPPHRGG GEPRGGRQHH APYHQQHHQG PPPGGPGPRT EEKISDSEGF KANLSLLRRP GEKTYTQRCR LFVGNLPADI TEDEFKRLFA KYGEPGEVFI NKGKGFGFIK LESRALAEIA KAELDDTPMR GRQLRVRFAT HAAALSVRNL SPYVSNELLE EAFSQFGPIE RAVVIVDDRG RSTGKGIVEF ASKPAARKAF ERCSEGVFLL TTTPRPVIVE PLEQLDDEDG LPEKLAQKNP MYQKERETPP RFAQHGTFEY EYSQRWKSLD EMEKQQREQV EKNMKDAKDK LESEMEDAYH EHQANLLRQD LMRRQEELRR MEELHSQEMQ KRKEMQLRQE EERRRREEEM MIRQREMEEQ MRRQREESYS RMGYMDPRER DMRMGGGGTM NMGDPYGSGG QKFPPLGGGG GIGYEANPGV PPATMSGSMM GSDMRTERFG QGGAGPVGGQ GPRGMGPGTP AGYGRGREEY EGPNKKPRF **Sequence without tag. The**

Product Details

	proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	SFPQ
Alternative Name:	Sfpq (SFPQ Products)
Background:	Splicing factor, proline- and glutamine-rich (DNA-binding p52/p100 complex, 100 kDa subunit) (Polypyrimidine tract-binding protein-associated-splicing factor) (PSF) (PTB-associated-splicing factor),FUNCTION: DNA- and RNA binding protein, involved in several nuclear processes. Essential pre-mRNA splicing factor required early in spliceosome formation and for splicing catalytic step II, probably as a heteromer with NONO. Binds to pre-mRNA in spliceosome C complex, and specifically binds to intronic polypyrimidine tracts. Involved in regulation of signal-induced alternative splicing. During splicing of PTPRC/CD45, a phosphorylated form is sequestered by THRAP3 from the pre-mRNA in resting T-cells, T-cell activation and subsequent

	reduced phosphorylation is proposed to lead to release from THRAP3 allowing binding to pre-mRNA splicing regulatotry elements which represses exon inclusion. Interacts with U5 snRNA, probably by binding to a purine-rich sequence located on the 3' side of U5 snRNA stem 1b. May be involved in a pre-mRNA coupled splicing and polyadenylation process as component of a snRNP-free complex with SNRPA/U1A. The SFPQ-NONO heteromer associated with MATR3 may play a role in nuclear retention of defective RNAs. SFPQ may be involved in homologous DNA pairing, in vitro, promotes the invasion of ssDNA between a duplex DNA and produces a D-loop formation. The SFPQ-NONO heteromer may be involved in DNA unwinding by modulating the function of topoisomerase I/TOP1, in vitro, stimulates dissociation of TOP1 from DNA after cleavage and enhances its jumping between separate DNA helices. The SFPQ-NONO heteromer binds DNA. The SFPQ-NONO heteromer may be involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination and may stabilize paired DNA ends, in vitro, the complex strongly stimulates DNA end joining, binds directly to the DNA substrates and cooperates with the Ku70/G22P1-Ku80/XRCC5 (Ku) dimer to establish a functional preligation complex. SFPQ is involved in transcriptional regulation. Functions as a transcriptional activator (By similarity). Transcriptional repression is mediated by an interaction of SFPQ with SIN3A and subsequent recruitment of histone deacetylases (HDACs). The SFPQ-NONO-NR5A1 complex binds to the CYP17 promoter and regulates basal and cAMP-dependent transcriptional activity. SFPQ isoform Long binds to the DNA binding domains (DBD) of nuclear hormone receptors, like RXRA and probably THRA, and acts as a transcriptional corepressor in absence of hormone ligands. Binds the DNA sequence 5'-CTGAGTC-3' in the insulin-like growth factor response element (IGFRE) and inhibits IGF-I-stimulated transcriptional activity (By similarity). Regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-BMAL1 heterodimer. Required for the transcriptional repression of circadian target genes, such as PER1, mediated by the large PER complex through histone deacetylation (PubMed:21680841, PubMed:22966205). Required for the assembly of nuclear speckles (By similarity). Plays a role in the regulation of DNA virus-mediated innate immune response by assembling into the HDP-RNP complex, a complex that serves as a platform for IRF3 phosphorylation and subsequent innate immune response activation through the cGAS-STING pathway (By similarity). {ECO:0000250|UniProtKB:P23246, ECO:0000269|PubMed:21680841, ECO:0000269|PubMed:22966205}.
Molecular Weight:	75.4 kDa
UniProt:	Q8VIJ6

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months