SFPQ Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SFPQ, Polyclonal Antibody
Full Product Name	SFPQ, CT (SFPQ, PSF, Splicing factor, proline-and glutamine-rich, 100kD DNA-pairing protein, DNA-binding p52/p100 complex, 100kD subunit, Polypyrimidine tract-binding protein-associated-splicing factor) (MaxLight 490)
Product Gene Name	anti-SFPQ antibody
Product Synonym Names	SFPQ; PSF; Splicing factor; proline-and glutamine-rich; 100kD DNA-pairing protein; DNA-binding p52/p100 complex; 100kD subunit; Polypyrimidine tract-binding protein-associated-splicing factor
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	72,263 Da
OMIM	605199
3D Structure	ModBase 3D Structure for P23246
Immunogen	SFPQ antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 675-705 amino acids from the C-terminal region of human SFPQ.
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-SFPQ antibody	Antibodies; Splicing Factors
Applications Tested/Suitable for anti-SFPQ antibody	Western Blot (WB), FLISA
Application Notes for anti-SFPQ antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.

Related Product Information for anti-SFPQ antibody	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 an heteromer with NONO. Binds to pre-mRNA in spliceosome C complex, and specifically binds to intronic polypyrimidine tracts. 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 may be involved in DNA nonhomologous 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. Transcriptional repression is probably mediated by an interaction of SFPQ with SIN3A and subsequent recruitment of histone deacetylases (HDACs). The SFPQ-NONO/SF-1 complex binds to the CYP17 promoter and regulates basal and cAMP-dependent transcriptional avtivity. SFPQ isoform Long binds to the DNA binding domains (DBD) of nuclear hormone receptors, like RXRA and probably THRA, and acts as 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.
Product References and Citations for anti-SFPQ antibody	Heyd, F., et al. Mol. Cell 40(1):126-137(2010). Marko, M., et al. Exp. Cell Res. 316(3):390-400(2010). David, A., et al. Eur. J. Endocrinol. 162(1):37-42(2010). Olsen, J.V., et al. Cell 127(3):635-648(2006). Ong, S.E., et al. Nat. Methods 1(2):119-126(2004).
Other Notes	Small volumes of anti-SFPQ antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SFPQ purchase	MBS6346620 is an antibody targeting SFPQ. Also known as SFPQ, CT (SFPQ, PSF, Splicing factor, proline-and glutamine-rich, 100kD DNA-pairing protein, DNA-binding p52/p100 complex, 100kD subunit, Polypyrimidine tract-binding protein-associated-splicing factor) (MaxLight 490). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SFPQ. It may not necessarily be applicable to this product.

NCBI GI #	4826998
NCBI GeneID	6421
NCBI Accession #	NP_005057.1
UniProt Primary Accession #	P23246
UniProt Secondary Accession #	P30808; Q5SZ71
UniProt Related Accession #	P23246
GenBank Nucleotide #	NM_005066.2
NCBI Official Full Name	splicing factor, proline- and glutamine-rich
NCBI Official Synonym Full Names	splicing factor proline/glutamine-rich
NCBI Official Symbol	SFPQ
NCBI Official Synonym Symbols	PSF; POMP100; PPP1R140
UniProt Protein Name	Splicing factor, proline- and glutamine-rich
UniProt Synonym Protein Names	100 kDa DNA-pairing protein; hPOMp100; DNA-binding p52/p100 complex, 100 kDa subunit; Polypyrimidine tract-binding protein-associated-splicing factor; PSF; PTB-associated-splicing factor
Protein Family	Splicing factor
UniProt Gene Name	SFPQ
UniProt Synonym Gene Names	PSF; hPOMp100; PSF; PTB-associated-splicing factor

UniProt Entry Name	SFPQ_HUMAN
NCBI Protein Information	splicing factor, proline- and glutamine-rich; hPOMp100; 100 kDa DNA-pairing protein; PTB-associated splicing factor; PTB-associated-splicing factor; DNA-binding p52/p100 complex, 100 kDa subunit; protein phosphatase 1, regulatory subunit 140; polypyrimidi
UniProt Comments for SFPQ	PSF: a proline-and glutamine-rich splicing factor. Essential pre-mRNA splicing factor required early in spliceosome formation. Seems to also bind DNA. The active complex is a heterotetramer of two 52 kDa and two 100 kDa subunits. Reported to be a PKC-alpha-binding protein in the cell nucleus. Two alternatively spliced isoforms have been described. Protein type: RNA splicing; RNA-binding; Nuclear receptor co-regulator Chromosomal Location of Human Ortholog: 1p34.3 Cellular Component: nucleoplasm; nuclear matrix; cytoplasm; nucleus; paraspeckles; chromatin Molecular Function: protein binding; histone deacetylase binding; nucleotide binding Biological Process: alternative nuclear mRNA splicing, via spliceosome; transcription, DNA-dependent; RNA splicing; rhythmic process; negative regulation of circadian rhythm; negative regulation of transcription from RNA polymerase II promoter; DNA repair; mRNA processing; negative regulation of transcription, DNA-dependent; regulation of circadian rhythm; DNA recombination
Research Articles on SFPQ	**1.** MALAT1 binds to SFPQ releasing PTBP2 from the SFPQ/PTBP2 complex, the increased SFPQ-detached PTBP2 promotes cell proliferation and migration in colorectal cancer.
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