

Rabbit SFPQ Polyclonal Antibody | anti-SFPQ antibody

SFPQ Antibody

CATALOG # AAA323141	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

SFPQ; Polyclonal Antibody; SFPQ Antibody; 100 kDa DNA pairing protein; 100 kDa DNA-pairing protein; 100 kDa subunit; DNA binding p52/p100 complex 100 kDa subunit; DNA-binding p52/p100 complex; hPOMP100; Polypyrimidine tract binding protein associated splicing factor; Polypyrimidine tract-binding protein-associated-splicing factor; POMP100; PPP1R140; proline-and glutamine-rich; Protein phosphatase 1 regulatory subunit 140; PSF; PTB associated splicing factor; PTB-associated-splicing factor; Sfpq; SFPQ_HUMAN; Splicing factor; Splicing factor proline and glutamine rich; Splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated); Splicing factor proline/glutamine rich; anti-SFPQ antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	SFPQ antibody detects endogenous levels of SFPQ.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	707
Applicable Applications for anti-SFPQ antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SFPQ.
Subcellular Location	Nucleus Matrix. Predominantly in nuclear matrix.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA323141 at 1/100 staining Mouse spleen tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts from various samples, using SFPQ antibody. Lane 1: mouse brain treated with blocking peptide. Lane 2: Mouse brain; Lane 3: 3T3; Lane 4: HeLa;



WB (Western Blot)
Western blot analysis of extracts of Y79 cells, using SFPQ antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-SFPQ antibody	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 regulatory 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/TOPI; in vitro, stimulates dissociation of TOP1 from DNA after cleavage and enhances its jumping between separate DNA helices. The SFPQ-NONO heteromer binds DNA (PubMed:25765647). 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 transcriptional activator (PubMed:25765647). 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 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. Regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-ARNTL/BMAL1 heterodimer. Required for the transcriptional repression of circadian target genes, such as PER1, mediated by the large PER complex through histone deacetylation (By similarity). Required for the assembly of nuclear speckles (PubMed:25765647). 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 (PubMed:28712728). Subunit Structure: Heterodimer with NONO (PubMed:25765647). Monomer and component of the SFPQ-NONO complex, which is probably a heterotetramer of two 52 kDa (NONO) and two 100 kDa (SFPQ) subunits (PubMed:8439294, PubMed:25765647). The coiled coil domain mediates interaction with NONO, and can also mediate formation of long, linear homooligomers (in vitro) (PubMed:25765647). SFPQ is a component of spliceosome and U5.4/6 snRNP complexes (PubMed:9409622, PubMed:8045264, PubMed:12403470). Interacts with SNRPA/U1A (PubMed:9848648). Component of a snRNP-free complex with SNRPA/U1A (PubMed:9848648). Part of complex consisting of SFPQ, NONO and MATR3 (PubMed:11525732). Interacts with polypyrimidine tract-binding protein 1/PTB (PubMed:10653975). Part of a complex consisting of SFPQ, NONO and NR5A1 (PubMed:11897684). Interacts with RXRA, probably THRA, and SIN3A (PubMed:11259580). Interacts with TOP1 (PubMed:9756848). Part of a complex consisting of SFPQ, NONO and TOP1 (PubMed:9756848). Interacts with SNRNP70 in apoptotic cells (PubMed:11514619). Interacts with PSPC1. Interacts with RNF43 (PubMed:18655028). Interacts with PITX3 and NR4A2/NURR1 (By similarity). Interacts with PTK6 (PubMed:19439179). Interacts with THRAP3; the interaction is dependent on SFPQ phosphorylation at 'Thr-687' and inhibits binding of SFPQ to a ESS1 exonic splicing silencer element-containing RNA (PubMed:20932480). The large PER complex involved in the histone deacetylation is composed of at least HDAC1, PER2, SFPQ and SIN3A. Interacts with PER1 and PER2 (By similarity). Interacts with PQBP1 (PubMed:21933836). Post-translational Modifications: The N-terminus is blocked. Phosphorylated on multiple serine and threonine residues during apoptosis. In vitro phosphorylated by PKC. Phosphorylation stimulates binding to DNA and D-loop formation, but inhibits binding to RNA. Phosphorylation of C-terminal tyrosines promotes its cytoplasmic localization, impaired its binding to polypyrimidine RNA and led to cell cycle arrest. In resting T-cells is phosphorylated at Thr-687 by GSK3B which is proposed to promote association with THRAP and to prevent binding to PTPRC/CD45 pre-mRNA; T-cell activation leads to reduced phosphorylation at Thr-687. Similarity: The coiled coil domain mediates interaction with NONO, and can also mediate formation of long, linear homooligomers (in vitro). The coiled coil domain is required for optimal DNA binding, and optimal transcription activation.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4826998
NCBI GeneID	6421

NCBI Accession #	NP_005057.1
NCBI GenBank Nucleotide #	NM_005066.2
UniProt Accession #	P23246 ; P30808 ; Q5SZ71
Molecular Weight	Observed: 100 kDa Predicted: 77 kDa
NCBI Official Full Name	splicing factor, proline- and glutamine-rich
NCBI Official Synonym Full Names	splicing factor proline and glutamine rich
NCBI Official Symbol	SFPQ
NCBI Official Synonym Symbols	PSF; POMP100; PPP1R140
NCBI Protein Information	splicing factor, proline- and glutamine-rich
UniProt Protein Name	Splicing factor, proline- and glutamine-rich
UniProt Gene Name	SFPQ
UniProt Synonym Gene Names	PSF; PSF1 PublicationManual assertion based on opinion iniRef.1; PTB-associated-splicing factor

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/sfpq-antibody-immunohistochemistry-western-blot-elisa/323141>