

Product datasheet

Anti-SFPQ antibody [B92] ab11825

★★★★☆ [2 Abreviews](#) [24 References](#)

Overview

Product name	Anti-SFPQ antibody [B92]
Description	Mouse monoclonal [B92] to SFPQ
Host species	Mouse
Tested applications	Suitable for: IHC-Fr, ICC/IF, ICC, WB, IP, RIA
Species reactivity	Reacts with: Mouse, Human
Immunogen	Tissue, cells or virus corresponding to Mouse SFPQ.
Positive control	Whole extract of cultured HeLa cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: 0.0268% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	B92
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab11825 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration. PubMed: 20082308
ICC		Use at an assay dependent concentration. (see Lee et al reference).
WB	★★★★★ (1)	Use at an assay dependent concentration. Predicted molecular weight: 76 kDa. (See Lee et al reference, Shav-Tal et al reference).
IP	★★★★★ (1)	Use at an assay dependent concentration. (see Lee et al reference, Carramolino et al reference).
RIA		Use at an assay dependent concentration. (see Lee et al reference).
AP		Use at an assay dependent concentration.

Target

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 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 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.

Involvement in disease

Note=A chromosomal aberration involving SFPQ may be a cause of papillary renal cell

carcinoma (PRCC). Translocation t(X;1)(p11.2;p34) with TFE3.

Sequence similarities

Contains 2 RRM (RNA recognition motif) domains.

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.

Arg-7, Arg-9, Arg-19 and Arg-25 are dimethylated, probably to asymmetric dimethylarginine.

Cellular localization

Nucleus matrix. Predominantly in nuclear matrix.

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