

Product datasheet

Anti-SFPQ antibody ab99357

1 References 3 Images

Overview

Product name	Anti-SFPQ antibody
Description	Rabbit polyclonal to SFPQ
Host species	Rabbit
Tested applications	Suitable for: WB, IP, IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat, Rabbit, Horse, Chicken, Guinea pig, Cow, Dog, Turkey, Chimpanzee, Rhesus monkey, Gorilla, Orangutan, Xenopus tropicalis 
Immunogen	A region within amino acids 657-707 of Human SFPQ (NP_005057.1).
Positive control	HeLa whole cell lysate. Mouse NIH3T3 cells.
General notes	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.</p>

Properties

Form	Liquid
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Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	ab99357 was affinity purified using an epitope specific to SFPQ immobilized on solid support.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab99357** 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
WB		1/2000 - 1/10000. Predicted molecular weight: 76 kDa.
IP		Use at 2-5 µg/mg of lysate.
IHC-P		1/500 - 1/2000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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.

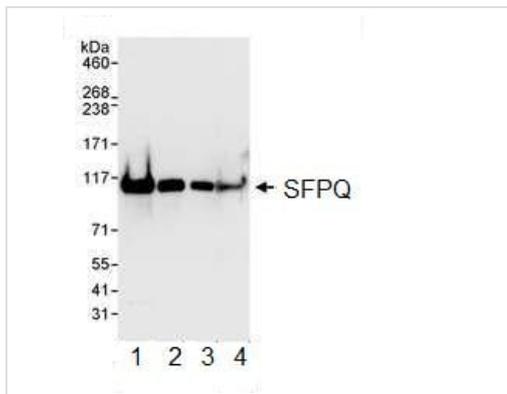
Phosphorylated on multiple serine and threonine residues during apoptosis. In vitro phosphorylated by PKC. Phosphorylation stimulates binding to DNA and D-loop formation, but inhibits binding to RNA.

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

Cellular localization

Nucleus matrix. Predominantly in nuclear matrix.

Images



Western blot - Anti-SFPQ antibody (ab99357)

All lanes : Anti-SFPQ antibody (ab99357) at 0.04 µg/ml

Lane 1 : HeLa whole cell lysate at 50 µg

Lane 2 : HeLa whole cell lysate at 15 µg

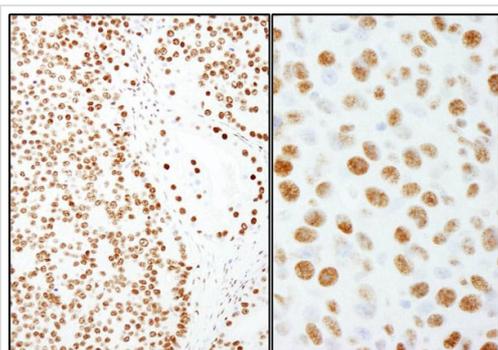
Lane 3 : HeLa whole cell lysate at 5 µg

Lane 4 : Mouse NIH3T3 whole cell lysate at 50 µg

Developed using the ECL technique.

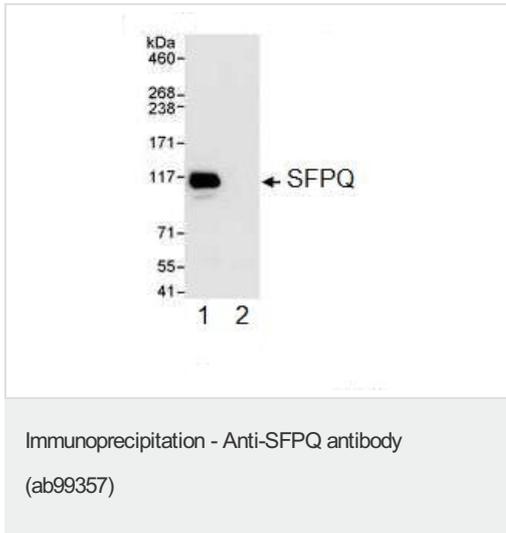
Predicted band size: 76 kDa

Exposure time: 3 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SFPQ antibody (ab99357)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostate carcinoma (left) and mouse CT26 colon carcinoma (right) tissues labelling SFPQ with ab99357 at 1/500 (0.4 µg/ml). Detection: DAB.



ab99357 at 1 µg/ml detecting SFPQ in HeLa whole cell lysate by western blot analysis following immunoprecipitation. Detection utilised ECL with a 1 second exposure.

For immunoprecipitation, ab99357 was used at 3 µg/mg lysate; 1 mg of lysate was used for IP and 20% of IP was loaded.

Lane 1; IP using ab99357

Lane 2; IP using control IgG.

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