For Research Use Only

SFPQ Monoclonal antibody, PBS Only

Catalog Number:67129-1-PBS Featured Product

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
67129-1-PBS

Size:
1mg/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG7181

GenBank Accession Number:
BC051192

GeneID (NCBI):
6421

UNIPROT ID:
P23246

Full Name:
splicing factor proline/glutamine-rich (polypyrimidine tract binding protein associated)

Calculated MW:
76 kDa

Observed MW:
90-100 kDa

Purification Method:
Protein A purification

CloneNo.:
1G4A5

Applications

Tested Applications:
Indirect ELISA, IF/ICC, IHC, WB

Species Specificity:
rat, mouse, human

Background Information

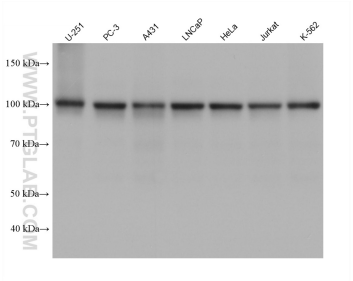
SFPQ, also named PSF, encodes a nuclear factor implicated in the splicing and regulation of gene expression. SFPQ probably forms a heteromer with NONO and participates in DNA pairing and DNA break repair program. Very recently SFPQ was identified as a downstream target of tau, complete nuclear depletion and cytoplasmic accumulation of SFPQ were shown in the neurons and astrocytes of brains with Alzheimer's disease (AD), more strikingly, reduced SFPQ levels may progress together with tau pathology, these observation strongly suggests the important role of SFPQ pathology in neurodegenerative diseases including AD. SFPQ encompasses 707 amino acids and has a molecular weight of 76 kDa, although it typically migrates on a sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) gel at an apparent molecular weight of 100 kDa. Proteolytic cleavage products of apparent molecular weights of 47 and 68 kDa, and an alternatively spliced form of 669 amino acids, have also been described in various cell types. (PMID: 25832716). Splicing Factor Proline and Glutamine rich (SFPQ) as the most significant intron-retaining transcript across diverse ALS-causing mutations (VCP, SOD1 and FUS). SFPQ protein binds extensively to its retained intron, which exhibits high cytoplasmic abundance in VCP mutation compared with controls. Crucially, the protein is less abundant in the nuclei of VCP mutation cultures and is ultimately lost from nuclei of MNs in mouse models (SOD1mu and VCP mutation transgenic mouse models) and human sporadic ALS post-mortem samples. In summary, our study implicates SFPQ IR and nuclear loss as general molecular hallmarks of familial and sporadic ALS.

Storage

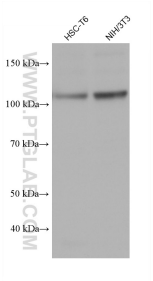
Storage:
Store at -80°C.
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C
Storage Buffer:
PBS Only

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 67129-1-Ig (SFPQ antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.



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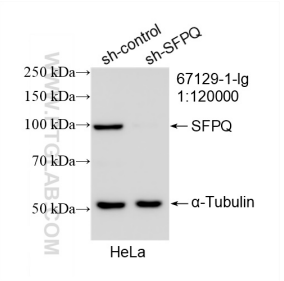
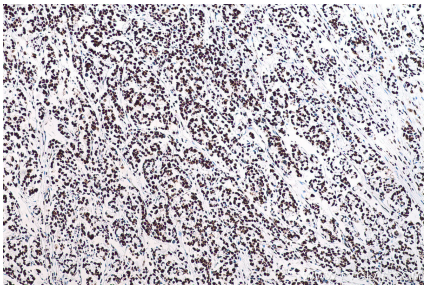
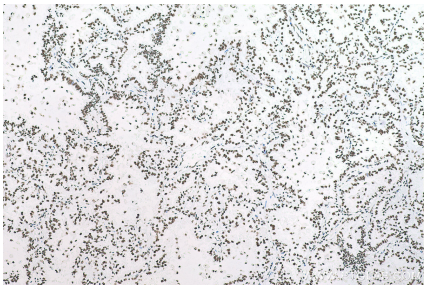


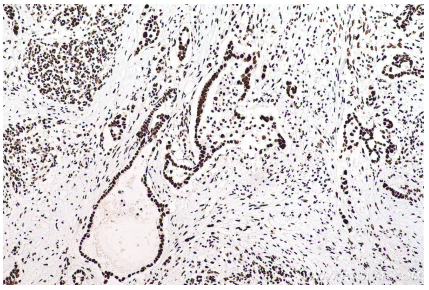
WB result of SFPQ antibody (67129-1-Ig; 1:120000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SFPQ transfected HeLa cells. This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.



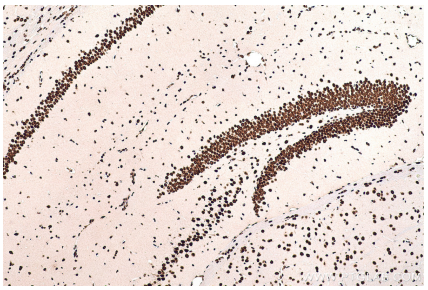
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 67129-1-Ig (SFPQ antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.



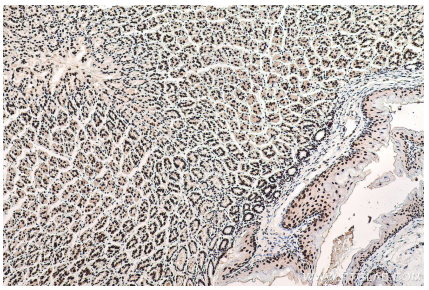
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 67129-1-Ig (SFPQ antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.



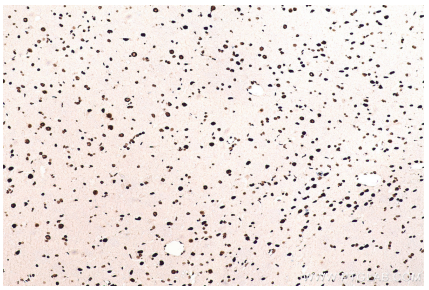
Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 67129-1-Ig (SFPQ antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.



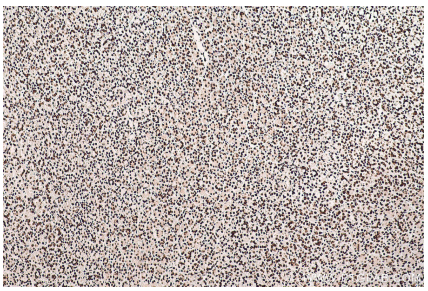
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 67129-1-Ig (SFPQ antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.

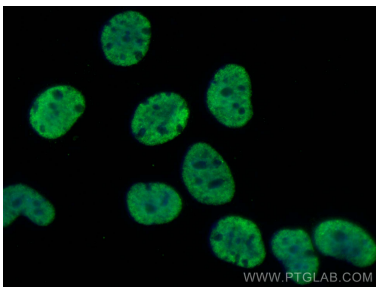


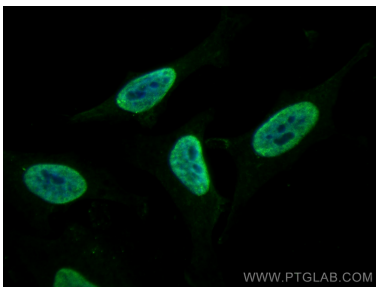
Immunohistochemical analysis of paraffin-embedded mouse stomach tissue slide using 67129-1-Ig (SFPQ antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.



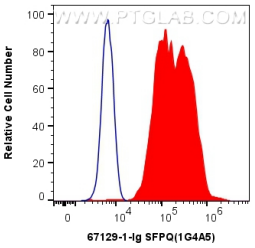
Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 67129-1-Ig (SFPQ antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.







Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 67129-1-Ig (SFPQ antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.



1X10^6 HeLa cells were intracellularly stained with 0.4 ug Anti-Human SFPQ (67129-1-Ig, Clone:1G4A5) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.

Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using SFPQ antibody (67129-1-Ig, Clone: 1G4A5) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.

Immunofluorescent analysis of (4% PFA) fixed HeLa cells using SFPQ antibody (67129-1-Ig, Clone: 1G4A5) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 67129-1-PBS in a different storage buffer formulation.