

For Research Use Only

SFPQ Polyclonal antibody

Catalog Number:15585-1-AP

Featured Product

32 Publications



Basic Information

Catalog Number:

15585-1-AP

Size:

150ul , Concentration: 350 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

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:

Antigen affinity purification

Recommended Dilutions:

WB 1:2000-1:16000

IHC 1:20-1:200

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP, RIP, ELISA

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse

Positive Controls:

WB : HeLa cells, Jurkat cells, human brain tissue, PC-3 cells, mouse brain tissue, Y79 cells, BxPC-3 cells, MCF-7 cells

IHC : human brain tissue,

IF/ICC : HeLa cells,

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

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.

Notable Publications

Author	Pubmed ID	Journal	Application
Shaojun Zhang	34737357	Cell Res	WB
Shi-Wei He	32661324	Oncogene	WB,RIP,IF
Xu Wang	35910786	Theranostics	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

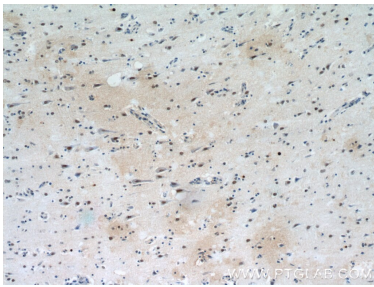
For technical support and original validation data for this product please contact:

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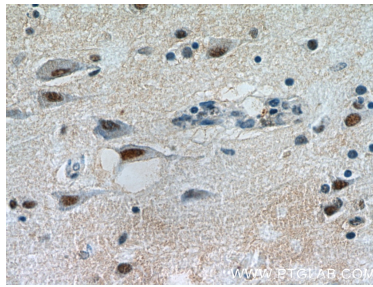
E: proteintech@ptglab.com
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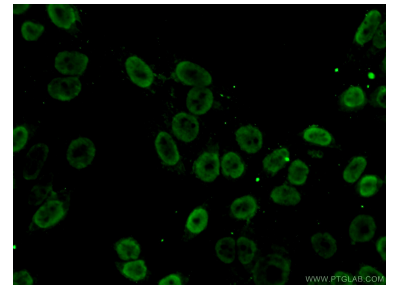
Selected Validation Data



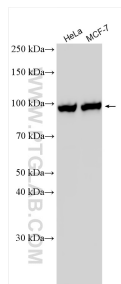
Immunohistochemical analysis of paraffin-embedded human brain using 15585-1-AP (SFPQ antibody) at dilution of 1:50 (under 10x lens).



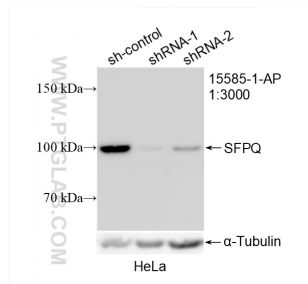
Immunohistochemical analysis of paraffin-embedded human brain using 15585-1-AP (SFPQ antibody) at dilution of 1:50 (under 40x lens).



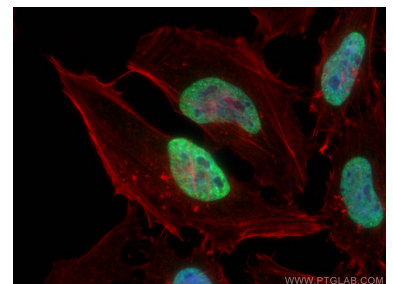
Immunofluorescent analysis of (10% Formaldehyde) fixed HeLa cells using 15585-1-AP (SFPQ antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Various lysates were subjected to SDS PAGE followed by western blot with 15585-1-AP (SFPQ antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



WB result of SFPQ antibody (15585-1-AP; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SFPQ transfected HeLa cells.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using SFPQ antibody (15585-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).