

PRPF18 (N-19): sc-243873

BACKGROUND

PRPF18 (pre-mRNA-splicing factor 18), also known as HPRP18, is a 342 amino acid protein that localizes to nuclear speckles and plays a role in the second step of pre-mRNA splicing. A member of the PRP18 family, PRPF18 contains seven WD repeats and exists as two alternatively spliced isoforms which are encoded by a gene located on human chromosome 10p13. Chromosome 10 contains over 800 genes and 135 million nucleotides. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome. Other chromosome 10 associated disorders include Cockayne syndrome, tetrahydrobiopterin deficiency and trisomy 10.

REFERENCES

1. Troelstra, C., Landsvater, R.M., Wiegant, J., van der Ploeg, M., Viel, G., Buys, C.H. and Hoeijmakers, J.H. 1992. Localization of the nucleotide excision repair gene ERCC6 to human chromosome 10q11-q21. *Genomics* 12: 745-749.
2. Horowitz, D.S. and Krainer, A.R. 1997. A human protein required for the second step of pre-mRNA splicing is functionally related to a yeast splicing factor. *Genes Dev.* 11: 139-151.
3. Teresi, R.E., Zbuk, K.M., Pezzolesi, M.G., Waite, K.A. and Eng, C. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. *Am. J. Hum. Genet.* 81: 756-767.
4. Yin, Y. and Shen, W.H. 2008. PTEN: a new guardian of the genome. *Oncogene* 27: 5443-5453.
5. Laugel, V., Dalloz, C., Durand, M., Sauvanaud, F., Kristensen, U., Vincent, M.C., Pasquier, L., Odent, S., Cormier-Daire, V., Gener, B., Tobias, E.S., Tolmie, J.L., Martin-Coignard, D., Drouin-Garraud, V., Heron, D., Journel, H., Raffo, E., Vigneron, J., Lyonnet, S., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. *Hum. Mutat.* 31: 113-126.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2010. Johns Hopkins University, Baltimore, MD. MIM Number: 604993. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: PRPF18 (human) mapping to 10p13; Prpf18 (mouse) mapping to 2 A1.

SOURCE

PRPF18 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PRPF18 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243873 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PRPF18 (N-19) is recommended for detection of PRPF18 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other PRPF family members.

PRPF18 (N-19) is also recommended for detection of PRPF18 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PRPF18 siRNA (h): sc-90497, PRPF18 siRNA (m): sc-152492, PRPF18 shRNA Plasmid (h): sc-90497-SH, PRPF18 shRNA Plasmid (m): sc-152492-SH, PRPF18 shRNA (h) Lentiviral Particles: sc-90497-V and PRPF18 shRNA (m) Lentiviral Particles: sc-152492-V.

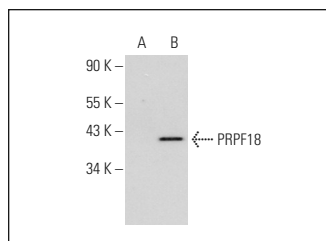
Molecular Weight of PRPF18: 42 kDa.

Positive Controls: PRPF18 (m): 293T Lysate: sc-127394.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



PRPF18 (N-19): sc-243873. Western blot analysis of PRPF18 expression in non-transfected: sc-117752 (A) and mouse PRPF18 transfected: sc-127394 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.