

# PRPF18 (52): sc-136529

## 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., Daloz, 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., 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 (52) is a mouse monoclonal antibody raised against amino acids 33-226 of isoform 1 of PRPF18 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PRPF18 (52) is available conjugated to agarose (sc-136529 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-136529 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

## APPLICATIONS

PRPF18 (52) is recommended for detection of isoform 1 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with isoform 2 of PRPF18.

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.

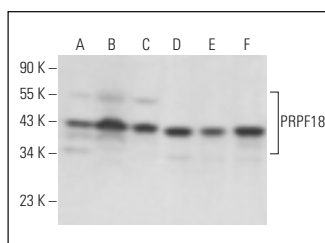
Molecular Weight of PRPF18: 42 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, Jurkat whole cell lysate: sc-2204 or PC-12 cell lysate: sc-2250.

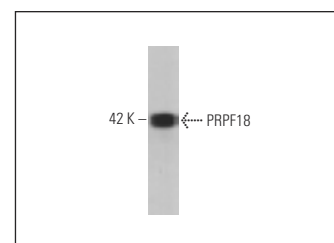
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



PRPF18 (52): sc-136529. Western blot analysis of PRPF18 expression in ECV304 (A), Jurkat (B), HUV-EC-C (C), TK-1 (D), A-10 (E) and PC-12 (F) whole cell lysates.



PRPF18 (52): sc-136529. Western blot analysis of PRPF18 expression in human endothelial tissue extract.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.