

PARP-3 (C-1): sc-390758

BACKGROUND

Poly(ADP-ribose) polymerase-3 (PARP-3) is part of the base excision repair (BER) pathway, catalyzing the poly(ADP-ribosylation) of nuclear proteins. Poly(ADP-ribosylation), a post-translational modification following DNA damage, appears as an obligatory step in a detection/signaling pathway leading to the reparation of DNA strand breaks. PARP-3 is a nuclear, DNA-binding protein, which interacts with PARP-1. PARP-3 is present in actively dividing tissues with highest levels in the kidney, skeletal muscle, liver, heart and spleen. Human PARP-3 maps to chromosome 3p21.2, a gene region that undergoes alteration in solid malignant tumors.

REFERENCES

1. Ame, J.C., et al. 1999. PARP-2, a novel mammalian DNA damage-dependent poly(ADP-ribose) polymerase. *J. Biol. Chem.* 274: 17860-17868.
2. Still, I.H., et al. 1999. Identification of a novel gene (ADPRTL1) encoding a potential Poly(ADP-ribosyl)transferase protein. *Genomics* 62: 533-536.
3. Berghammer, H., et al. 1999. pADPRT-2: a novel mammalian polymerizing (ADP-ribosyl)transferase gene related to truncated pADPRT homologues in plants and *Caenorhabditis elegans*. *FEBS Lett.* 449: 259-263.
4. Glowacki, G., et al. 2001. Structure, chromosomal localization, and expression of the gene for mouse ecto-mono(ADP-ribosyl)transferase ART5. *Gene* 275: 267-277.
5. Schreiber, V., et al. 2002. Poly(ADP-ribose) polymerase-2 (PARP-2) is required for efficient base excision DNA repair in association with PARP-1 and XRCC1. *J. Biol. Chem.* 277: 23028-23036.
6. Augustin, A., et al. 2003. PARP-3 localizes preferentially to the daughter centriole and interferes with the G₁/S cell cycle progression. *J. Cell Sci.* 116: 1551-1562.
7. LocusLink Report (LocusID: 10039). <http://www.ncbi.nlm.nih.gov/LocusLink/>
8. SWISS-PROT/TrEMBL (Q9Y6F1). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: PARP3 (human) mapping to 3p21.2; Parp3 (mouse) mapping to 9 F1.

SOURCE

PARP-3 (C-1) is a mouse monoclonal antibody raised against amino acids 139-219 mapping within an internal region of PARP-3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-390758 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

PARP-3 (C-1) is recommended for detection of PARP-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for PARP-3 siRNA (h): sc-106357, PARP-3 siRNA (m): sc-152029, PARP-3 shRNA Plasmid (h): sc-106357-SH, PARP-3 shRNA Plasmid (m): sc-152029-SH, PARP-3 shRNA (h) Lentiviral Particles: sc-106357-V and PARP-3 shRNA (m) Lentiviral Particles: sc-152029-V.

PARP-3 (C-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

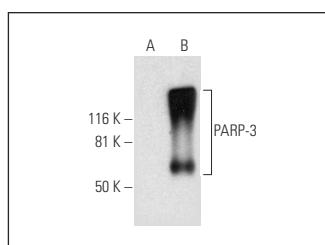
Molecular Weight of PARP-3: 60 kDa.

Positive Controls: PARP-3 (m3): 293T Lysate: sc-122389.

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



PARP-3 (C-1): sc-390758. Western blot analysis of PARP-3 expression in non-transfected: sc-117752 (A) and mouse PARP-3 transfected: sc-122389 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.