

# PARP-2 (B-21): sc-133886

## BACKGROUND

Poly(ADP-ribose) polymerase-2 (PARP-2) 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-2 is a nuclear, DNA-binding protein, which interacts with PARP-1. PARP-2 is present in actively dividing tissues with highest levels in the kidney, skeletal muscle, liver, heart and spleen. Human PARP-2 maps to chromosome 14q11.2-q12.

## 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. 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.
3. Menissier de Murcia, J., et al. 2003. Functional interaction between PARP-1 and PARP-2 in chromosome stability and embryonic development in mouse. *EMBO J.* 9: 2255-2263.
4. Curtin, N.J. 2005. PARP inhibitors for cancer therapy. *Expert. Rev. Mol. Med.* 7: 1-20.
5. Iwashita, A., et al. 2005. Discovery of quinazolinone and quinoxaline derivatives as potent and selective poly(ADP-ribose) polymerase-1/2 inhibitors. *FEBS Lett.* 579: 1389-1393.
6. Meder, V.S., et al. 2005. PARP-1 and PARP-2 interact with nucleophosmin/B23 and accumulate in transcriptionally active nucleoli. *J. Cell Sci.* 118 (Pt. 1): 211-222.
7. LocusLink Report (LocusID: 10038). <http://www.ncbi.nlm.nih.gov/LocusLink/>
8. SWISS-PROT/TrEMBL (Q9UGN5). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

## CHROMOSOMAL LOCATION

Genetic locus: PARP2 (human) mapping to 14q11.2; Parp2 (mouse) mapping to 14 C1.

## SOURCE

PARP-2 (B-21) is an affinity purified rabbit polyclonal antibody raised against synthetic PARP-2 peptide of human origin.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## STORAGE

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

## APPLICATIONS

PARP-2 (B-21) is recommended for detection of PARP-2 of mouse 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PARP-2 siRNA (h): sc-106356, PARP-2 siRNA (m): sc-152028, PARP-2 shRNA Plasmid (h): sc-106356-SH, PARP-2 shRNA Plasmid (m): sc-152028-SH, PARP-2 shRNA (h) Lentiviral Particles: sc-106356-V and PARP-2 shRNA (m) Lentiviral Particles: sc-152028-V.

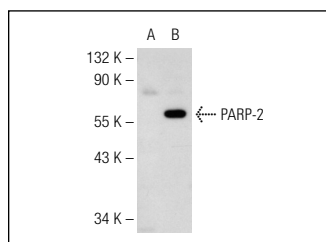
Molecular Weight of PARP-2: 62 kDa.

Positive Controls: PARP-2 (m): 293T Lysate: sc-122386 or Raji whole cell lysate.

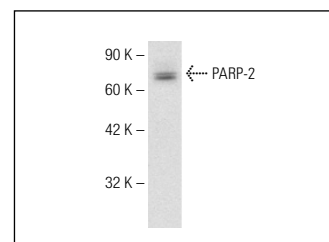
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

## DATA



PARP-2 (B-21): sc-133886. Western blot analysis of PARP-2 expression in non-transfected: sc-117752 (A) and mouse PARP-2 transfected: sc-122386 (B) 293T whole cell lysates.



PARP-2 (B-21): sc-133886. Western blot analysis of PARP-2 expression in Raji whole cell lysate.

## 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) or our catalog for detailed protocols and support products.