SANTA CRUZ BIOTECHNOLOGY, INC.

PARP-2 (A-18): sc-30622

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Poly(ADP-ribose) polymerase-2 (PARP-2) is part of the base excision repair (BER) pathway, catalyzing the poly(ADP-ribosyl)ation of nuclear proteins. Poly(ADP-ribosyl)ation, 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.

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.

CHROMOSOMAL LOCATION

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

SOURCE

PARP-2 (A-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PARP-2 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-30622 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PARP-2 (A-18) is recommended for detection of PARP-2 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). PARP-2 (A-18) is also recommended for detection of PARP-2 in additional species, including equine, canine and porcine.

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.

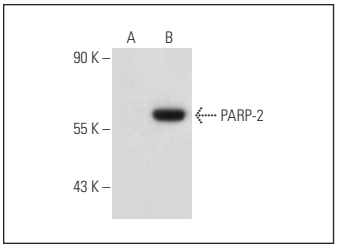
Molecular Weight of PARP-2: 62 kDa.

Positive Controls: PARP-2 (m): 293T Lysate: sc-122386 or Raji whole cell lysate: sc-364236.

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



PARP-2 (A-18): sc-30622. 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.

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 or our catalog for detailed protocols and support products.