

PARN (H-105): sc-135242

BACKGROUND

Exonucleolytic degradation of the poly(A) tail often initiates the first step in the decay of eukaryotic mRNAs. Poly(A)-specific ribonuclease (PARN), a highly poly(A)-specific 3'-exoribonuclease, efficiently degrades mRNA poly(A) tails. PARN, which also may be designated deadenylating nuclease, may also be involved in nonsense-mediated mRNA decay, a critical process of selective degradation of mRNAs that contain premature stop codons, and in the degradation of inherently unstable mRNAs that contain au-rich elements (AREs) in their 3' untranslated regions. PARN, which can form a homodimer, interacts with KHSRP and can be found in a mRNA decay complex with Rent1, Rent2 and Rent3B. It localizes mainly to the nucleus (may be detected in the nucleolus), but may also localize to the cytoplasm.

REFERENCES

1. Buiting, K., et al. 2000. The human gene has a truncated copy in the Prader-Willi/Angelman syndrome region on 15q11-q13. *Cytogenet. Cell Genet.* 87: 125-131.
2. Martinez, J., et al. 2000. A 54 kDa fragment of the poly(A)-specific ribonuclease is an oligomeric, processive, and cap-interacting poly(A)-specific 3' exonuclease. *J. Biol. Chem.* 275: 24222-24230.
3. Scherl, A., et al. 2002. Functional proteomic analysis of human nucleolus. *Mol. Biol. Cell* 13: 4100-4109.
4. Ren, Y.G., et al. 2004. Coordination of divalent metal ions in the active site of poly(A)-specific ribonuclease. *J. Biol. Chem.* 279: 48702-48706.
5. Seal, R., et al. 2005. Serum-deprivation stimulates cap-binding by PARN at the expense of eIF4E, consistent with the observed decrease in mRNA stability. *Nucleic Acids Res.* 33: 376-387.

CHROMOSOMAL LOCATION

Genetic locus: PARN (human) mapping to 16p13.12; Parn (mouse) mapping to 16 A1.

SOURCE

PARN (H-105) is a rabbit polyclonal antibody raised against amino acids 408-512 mapping within an internal region of PARN 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-135242 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.

PROTOCOLS

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

APPLICATIONS

PARN (H-105) is recommended for detection of PARN 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PARN (H-105) is also recommended for detection of PARN in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PARN siRNA (h): sc-61297, PARN siRNA (m): sc-61298, PARN shRNA Plasmid (h): sc-61297-SH, PARN shRNA Plasmid (m): sc-61298-SH, PARN shRNA (h) Lentiviral Particles: sc-61297-V and PARN shRNA (m) Lentiviral Particles: sc-61298-V.

PARN (H-105) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

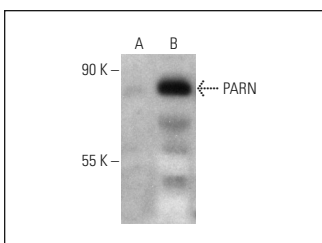
Molecular Weight of PARN: 74 kDa.

Positive Controls: PARN transfected CHO whole cell lysate.

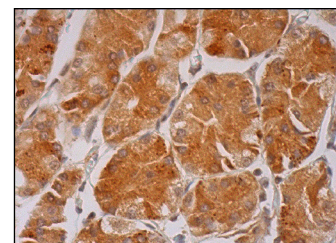
RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



PARN (H-105): sc-135242. Western blot analysis of PARN expression in non-transfected CHO (A) and human PARN transfected CHO (B) whole cell lysates.



PARN (H-105): sc-135242. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic and nuclear staining of glandular cells.

RESEARCH USE

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