SANTA CRUZ BIOTECHNOLOGY, INC.

PAP-β (M-19): sc-26859

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Polyadenylation of the 3' ends of eukaryotic mRNAs is a key event that takes place in the nucleus during maturation of mRNA. The reaction includes endoribonucleolytic cleavage of the pre-RNA at the poly(A) site that leads to synthesis of the poly(A) tail at the 3' end of the upstream cleavage product. The poly(A) polymerase (PAP) is required The adenosine addition reaction depends on poly(A) polymerase (PAP) activity. The testis express PAP-β (TPAP) in the cytoplasm of spermatogenic cells. The adenosine addition function of PAP-β plays a critical role in male germ cell production. PAP-β-deficient transgenic mice display impaired expression of haploid-specific genes that are necessary for spermatogenesis. The intronless gene encoding human PAP-β maps to chromosome 7p22.3.

REFERENCES

1. Christofori, G. and Keller, W. 1989. Poly(A) polymerase purified from HeLa cell nuclear extract is required for both cleavage and polyadenylation of pre-mRNA *in vitro*. Mol. Cell. Biol. 9: 193-203.
2. Lee, Y.J., Lee, Y. and Chung, J.H. 2000. An intronless gene encoding a poly(A) polymerase is specifically expressed in testis. FEBS Lett. 487: 287-292.
3. Kashiwabara, S., Zhuang, T., Yamagata, K., Noguchi, J., Fukamizu, A. and Baba, T. 2000. Identification of a novel isoform of poly(A) polymerase, TPAP, specifically present in the cytoplasm of spermatogenic cells. Dev. Biol. 228: 106-115.
4. Kashiwabara, S., Noguchi, J., Zhuang, T., Ohmura, K., Honda, A., Sugiura, S., Miyamoto, K., Takahashi, S., Inoue, K., Ogura, A. and Baba, T. 2002. Regulation of spermatogenesis by testis-specific, cytoplasmic poly(A) polymerase TPAP. Science 298: 1999-2002.
5. LocusLink Report (LocusID: 56903). http://www.ncbi.nlm.nih.gov/LocusLink

CHROMOSOMAL LOCATION

Genetic locus: Papolb (mouse) mapping to 5 G2.

SOURCE

PAP-β (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PAP-β 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-26859 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

PAP-β (M-19) is recommended for detection of PAP-β of mouse and rat 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).

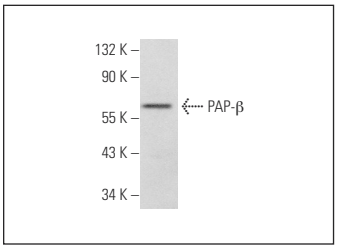
Molecular Weight of PAP-β: 70 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or rat testis extract: sc-2400.

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



PAP-β (M-19): sc-26859. Western blot analysis of PAP-β expression in NIH/3T3 whole cell lysate.

PROTOCOLS

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