

# PWP1 (Y-13): sc-107983

## BACKGROUND

PWP1 (periodic tryptophan protein 1), also known as IEF SSP 9502 or endonuclein, is a 501 amino acid protein that is the human homolog of the *Saccharomyces cerevisiae* periodic Trp protein. Localized to the nucleus and expressed highly in the kidneys, pancreas, placenta and skeletal muscle, PWP1 is thought to play an important role in transcription and cell growth. In yeast, PWP1 is a histone tail-associated protein that interacts with chromatin through the H4 tail. PWP1 contains five WD-repeats and may participate in the development of pancreatic cancer. It is implicated in regulating chaperone activities in the ER and signal transduction pathways in the nucleus.

## REFERENCES

1. Duronio, R.J., et al. 1992. Comparative analysis of the  $\beta$  transducin family with identification of several new members including PWP1, a nonessential gene of *Saccharomyces cerevisiae* that is divergently transcribed from NMT1. *Proteins* 13: 41-56.
2. Honoré, B., et al. 1995. Cloning of a cDNA encoding a novel human nuclear phosphoprotein belonging to the WD-40 family. *Gene* 151: 291-296.
3. Honoré, B., et al. 2002. Endonuclein is a cell cycle regulated WD-repeat protein that is upregulated in adenocarcinoma of the pancreas. *Oncogene* 21: 1123-1129.
4. Zhang, W., et al. 2005. The functional landscape of mouse gene expression. *J. Biol.* 3: 21.
5. Suka, N., et al. 2006. The WD40-repeat protein Pwp1p associates *in vivo* with 25S ribosomal chromatin in a Histone H4 tail-dependent manner. *Nucleic Acids Res.* 34: 3555-3567.

## CHROMOSOMAL LOCATION

Genetic locus: PWP1 (human) mapping to 12q23.3; Pwp1 (mouse) mapping to 10 C1.

## SOURCE

PWP1 (Y-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PWP1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107983 P, (100  $\mu$ g 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

PWP1 (Y-13) is recommended for detection of PWP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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); non cross-reactive with other PWP family members.

PWP1 (Y-13) is also recommended for detection of PWP1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PWP1 siRNA (h): sc-95942, PWP1 siRNA (m): sc-152597, PWP1 shRNA Plasmid (h): sc-95942-SH, PWP1 shRNA Plasmid (m): sc-152597-SH, PWP1 shRNA (h) Lentiviral Particles: sc-95942-V and PWP1 shRNA (m) Lentiviral Particles: sc-152597-V.

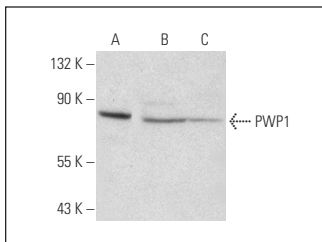
Molecular Weight of PWP1: 79 kDa.

Positive Controls: C32 nuclear extract: sc-2136, Sol8 nuclear extract: sc-2157 or mouse pancreas extract: sc-364244.

## 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



PWP1 (Y-13): sc-107983. Western blot analysis of PWP1 expression in Sol8 (A) and C32 (B) nuclear extracts and mouse pancreas tissue extract (C).

## RESEARCH USE

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