

PWP1 (B-2): sc-166656

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 β 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. Honore, B., et al. 2002. Endonuclein is a cell cycle regulated WD-repeat protein that is up-regulated in adenocarcinoma of the pancreas. *Oncogene* 21: 1123-1129.
3. Zhang, W., et al. 2005. The functional landscape of mouse gene expression. *J. Biol.* 3: 21.
4. 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.
5. Yuan, X., et al. 2007. Nuclear protein profiling of Jurkat cells during heat stress-induced apoptosis by 2-DE and MS/MS. *Electrophoresis* 28: 2018-2026.

CHROMOSOMAL LOCATION

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

SOURCE

PWP1 (B-2) is a mouse monoclonal antibody raised against amino acids 143-221 mapping within an internal region of PWP1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PWP1 (B-2) is available conjugated to agarose (sc-166656 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166656 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166656 PE), fluorescein (sc-166656 FITC), Alexa Fluor[®] 488 (sc-166656 AF488), Alexa Fluor[®] 546 (sc-166656 AF546), Alexa Fluor[®] 594 (sc-166656 AF594) or Alexa Fluor[®] 647 (sc-166656 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166656 AF680) or Alexa Fluor[®] 790 (sc-166656 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PWP1 (B-2) is recommended for detection of PWP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

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.

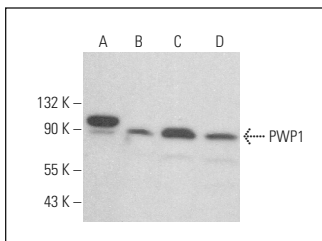
Molecular Weight of PWP1: 79 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, Jurkat whole cell lysate: sc-2204 or NIH/3T3 nuclear extract: sc-2138.

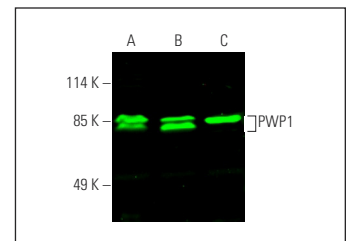
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



PWP1 (B-2): sc-166656. Western blot analysis of PWP1 expression in c4 (A), SUP-T1 (B), MOLT-4 (C) and ALL-SIL (D) whole cell lysates.



PWP1 (B-2): sc-166656. Near-infrared western blot analysis of PWP1 expression in Jurkat (A) and MOLT-4 (B) whole cell lysates and NIH/3T3 nuclear extract (C). Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 680: sc-516180.

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 for detailed protocols and support products.