

PWP2 (N-16): sc-83745

BACKGROUND

PWP2 (periodic tryptophan protein 2), also known as EHO-17, is a 919 amino acid protein that is the human homolog of the *Saccharomyces cerevisiae* periodic Trp 2 protein. Belonging to the WD repeat PWP2 family of proteins, PWP2 contains 14 WD repeats and has over 40% identity to the yeast homolog. PWP2 is localized to the nucleus and is implicated to play a role in early G₁ phase of the cell cycle. Essential for cell viability, PWP2 is also thought to be a candidate for various genetic disorders, such as progressive myoclonus epilepsy (EPM1), autoimmune polyglandular disease (APECED) and holoprosencephaly-1 (HPE1). The PWP2 gene maps to chromosome 21q22.3.

REFERENCES

1. Yamakawa, K., Gao, D.Q. and Korenberg, J.R. 1996. A periodic tryptophan protein 2 gene homologue (PWP2H) in the candidate region of progressive myoclonus epilepsy on 21q22.3. *Cytogenet. Cell Genet.* 74: 140-145.
2. Lafrenière, R.G., Rochefort, D.L., Chrétien, N., Neville, C.E., Korneluk, R.G., Zuo, L., Wei, Y., Lichter, J. and Rouleau, G.A. 1996. Isolation and genomic structure of a human homolog of the yeast periodic tryptophan protein 2 (PWP2) gene mapping to 21q22.3. *Genome Res.* 6: 1216-1226.
3. Lalioti, M.D., Chen, H., Rossier, C., Shafaatian, R., Antonarakis, S.E. and Reid, J.D. 1996. Cloning the cDNA of human PWP2, which encodes a protein with WD repeats and maps to 21q22.3. *Genomics* 35: 321-327.
4. Shafaatian, R., Payton, M.A. and Reid, J.D. 1996. PWP2, a member of the WD-repeat family of proteins, is an essential *Saccharomyces cerevisiae* gene involved in cell separation. *Mol. Gen. Genet.* 252: 101-114.
5. Nagamine, K., Kudoh, J., Minoshima, S., Kawasaki, K., Asakawa, S., Ito, F. and Shimizu, N. 1997. Genomic organization and complete nucleotide sequence of the human PWP2 gene on chromosome 21. *Genomics* 42: 528-531.
6. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 601475. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Dosil, M. and Bustelo, X.R. 2004. Functional characterization of PWP2, a WD family protein essential for the assembly of the 90 S pre-ribosomal particle. *J. Biol. Chem.* 279: 37385-37397.
8. Bernstein, K.A., Bleichert, F., Bean, J.M., Cross, F.R. and Baserga, S.J. 2007. Ribosome biogenesis is sensed at the start cell cycle checkpoint. *Mol. Biol. Cell* 18: 953-964.

CHROMOSOMAL LOCATION

Genetic locus: PWP2 (human) mapping to 21q22.3; Pwp2 (mouse) mapping to 10 C1.

SOURCE

PWP2 (N-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of PWP2 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83745 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PWP2 (N-16) is recommended for detection of PWP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

PWP2 (N-16) is also recommended for detection of PWP2 in additional species, including canine and bovine.

Suitable for use as control antibody for PWP2 siRNA (h): sc-91396, PWP2 siRNA (m): sc-152598, PWP2 shRNA Plasmid (h): sc-91396-SH, PWP2 shRNA Plasmid (m): sc-152598-SH, PWP2 shRNA (h) Lentiviral Particles: sc-91396-V and PWP2 shRNA (m) Lentiviral Particles: sc-152598-V.

Molecular Weight of PWP2: 102 kDa.

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) 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.

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.


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Try **PWP2 (H-7): sc-398474**, our highly recommended monoclonal alternative to PWP2 (N-16).