

TPPP (N-19): sc-82065

BACKGROUND

Tubulin family members are globular proteins important in the assembly of microtubules. Microtubules are structural components that play important roles in mitosis, cytokinesis and vesicle transport. TPPP (tubulin polymerization-promoting protein), also known as p24 and p25, is a widely expressed 219 amino acid protein found in the perinuclear region of the cytoplasm. TPPP may form dimers and functions in polymerizing tubulin into double-walled tubules, polymorphic aggregates, or stabilized blocks. TPPP overexpression prevents formation of the mitotic spindle assembly and breakdown of the nuclear envelope. TPPP is phosphorylated by TPK II and is encoded by a gene that maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome.

REFERENCES

1. Libman, E., Dimitrijevi, M. and Tóth, A. 1981. Lipodystrophia diabetica. *Med. Pregl.* 34: 49-53.
2. Vincze, O., Tökési, N., Oláh, J., Hlavanda, E., Zotter, A., Horváth, I., Lehotzky, A., Tirián, L., Medzihradzsky, K.F., Kovács, J., Orosz, F. and Ovádi, J. 2006. Tubulin polymerization promoting proteins (TPPPs): members of a new family with distinct structures and functions. *Biochemistry* 45: 13818-13826.
3. Skjoerringe, T., Lundvig, D.M., Jensen, P.H. and Moos, T. 2006. P25 α /tubulin polymerization promoting protein expression by myelinating oligodendrocytes of the developing rat brain. *J. Neurochem.* 99: 333-342.
4. Preusser, M., Lehotzky, A., Budka, H., Ovádi, J. and Kovács, G.G. 2007. TPPP/p25 in brain tumours: expression in non-neoplastic oligodendrocytes but not in oligodendroglioma cells. *Acta Neuropathol.* 113: 213-215.
5. Gaddam, V. and Nagarajan, R. 2007. A new entry to polycyclic indole derivatives via intramolecular imino Diels-Alder reaction: observation of unexpected reaction. *J. Org. Chem.* 72: 3573-3576.
6. Dephoure, N., Zhou, C., Villen, J., Beausoleil, S.A., Bakalarski, C.E., Elledge, S.J. and Gygi, S.P. 2008. A quantitative atlas of mitotic phosphorylation. *Proc. Natl. Acad. Sci. USA* 105: 10762-10767.

CHROMOSOMAL LOCATION

Genetic locus: TPPP (human) mapping to 5p15.33; Tppp (mouse) mapping to 13 C1.

SOURCE

TPPP (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TPPP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-82065 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

TPPP (N-19) is recommended for detection of TPPP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 TPPP siRNA (h): sc-76720, TPPP siRNA (m): sc-76721, TPPP shRNA Plasmid (h): sc-76720-SH, TPPP shRNA Plasmid (m): sc-76721-SH, TPPP shRNA (h) Lentiviral Particles: sc-76720-V and TPPP shRNA (m) Lentiviral Particles: sc-76721-V.

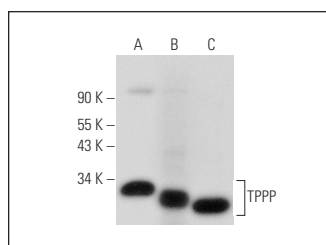
Molecular Weight of TPPP: 24 kDa.

Positive Controls: mouse brain extract: sc-2253, mouse cerebellum extract: sc-2403 or human cerebellum tissue extract.

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



TPPP (N-19): sc-82065. Western blot analysis of TPPP expression in mouse brain (A), human cerebellum (B) and mouse cerebellum (C) tissue extracts.

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.