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TPPP Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17081C

Specification

TPPP Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	O94811
Other Accession	NP_008961.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**47-75**

TPPP Antibody (Center) - Additional Information

Gene ID 11076

Other Names
Tubulin polymerization-promoting protein, TPPP, 25 kDa brain-specific protein, TPPP/p25, p24, p25-alpha, TPPP, TPPP1

Target/Specificity
This TPPP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 47-75 amino acids from the Central region of human TPPP.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
TPPP Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

TPPP Antibody (Center) - Protein Information

Name TPPP {ECO:0000303|PubMed:17105200, ECO:0000312|HGNC:HGNC:24164}

Function Regulator of microtubule dynamics that plays a key role in myelination by promoting

elongation of the myelin sheath (PubMed:31522887). Acts as a microtubule nucleation factor in oligodendrocytes: specifically localizes to the postsynaptic Golgi apparatus region, also named Golgi outpost, and promotes microtubule nucleation, an important step for elongation of the myelin sheath (PubMed:31522887, PubMed:33831707). Required for both uniform polarized growth of distal microtubules as well as directing the branching of proximal processes (PubMed:31522887). Shows magnesium-dependent GTPase activity; the role of the GTPase activity is unclear (PubMed:21316364, PubMed:21995432). In addition to microtubule nucleation activity, also involved in microtubule bundling and stabilization of existing microtubules, thereby maintaining the integrity of the microtubule network (PubMed:17105200, PubMed:17693641, PubMed:18028908, PubMed:26289831). Regulates microtubule dynamics by promoting tubulin acetylation: acts by inhibiting the tubulin deacetylase activity of HDAC6 (PubMed:20308065, PubMed:23093407). Also regulates cell migration: phosphorylation by ROCK1 inhibits interaction with HDAC6, resulting in decreased acetylation of tubulin and increased cell motility (PubMed:23093407). Plays a role in cell proliferation by regulating the G1/S-phase transition (PubMed:23355470). Involved in astral microtubule organization and mitotic spindle orientation during early stage of mitosis; this process is regulated by phosphorylation by LIMK2 (PubMed:22328514).

Cellular Location
Golgi outpost {ECO:0000250|UniProtKB:D3ZQL7}. Cytoplasm, cytoskeleton, microtubule organizing center {ECO:0000250|UniProtKB:D3ZQL7}. Cytoplasm, cytoskeleton. Nucleus Cytoplasm, cytoskeleton, spindle Note=Specifically localizes to the postsynaptic Golgi apparatus region, also named Golgi outpost, which shapes dendrite morphology by functioning as sites of acentrosomal microtubule nucleation (By similarity). Mainly localizes to the cytoskeleton (PubMed:18028908) Also found in the nucleus; however, nuclear localization is unclear and requires additional evidences (PubMed:18028908). Localizes to glial Lewy bodies in the brains of individuals with synucleinopathies (PubMed:15590652, PubMed:17027006). During mitosis, colocalizes with LIMK2 at the mitotic spindle (PubMed:22328514) {ECO:0000250|UniProtKB:D3ZQL7, ECO:0000269|PubMed:15590652, ECO:0000269|PubMed:17027006, ECO:0000269|PubMed:18028908, ECO:0000269|PubMed:22328514}

Tissue Location
Widely expressed..

TPPP Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TPPP Antibody (Center) - Images

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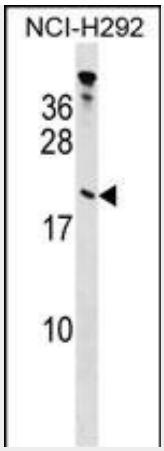

TPPP Antibody (Center) (Cat. #AP17081c) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the TPPP antibody detected the TPPP protein (arrow).

TPPP Antibody (Center) - Background

TPPP may play a role in the polymerization of tubulin into microtubules, microtubule bundling and the stabilization of existing microtubules, thus maintaining the integrity of the microtubule network. May play a role in mitotic spindle assembly and nuclear envelope breakdown.

TPPP Antibody (Center) - References

Tokesi, N., et al. J. Biol. Chem. 285(23):17896-17906(2010)
McGovern, D.P., et al. Nat. Genet. 42(4):332-337(2010)
Sun, M., et al. Cell. Signal. 21(12):1857-1865(2009)
Ovadi, J., et al. Bioessays 31(6):676-686(2009)
Zhou, Y., et al. Leuk. Lymphoma 49(10):1945-1953(2008)