

TPPP Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP17081c**Specification****TPPP Antibody (Center) Blocking Peptide -
Product Information**Primary Accession [O94811](#)**TPPP Antibody (Center) Blocking Peptide -
Additional Information**

Gene ID 11076

Other NamesTubulin polymerization-promoting protein,
TPPP, 25 kDa brain-specific protein,
TPPP/p25, p24, p25-alpha, TPPP, TPPP1**Format**Peptides are lyophilized in a solid powder
format. Peptides can be reconstituted in
solution using the appropriate buffer as
needed.**Storage**Maintain refrigerated at 2-8°C for up to 6
months. For long term storage store at
-20°C.**Precautions**This product is for research use only. Not
for use in diagnostic or therapeutic
procedures.**TPPP Antibody (Center) Blocking Peptide -
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:<a href="http://www.uniprot.org/c
itations/31522887"
target="_blank">31522887). Acts as a
microtubule nucleation factor in**TPPP Antibody (Center) Blocking Peptide -
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) Blocking Peptide -
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)

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). 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:21995432, PubMed:21316364). 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 centrosomal 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)