

Rabbit TPPP Polyclonal Antibody | anti-TPPP antibody

Phospho-TPPP (Ser18) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31436	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (89%), Dog (100%)	Western Blot, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

TPPP; Polyclonal Antibody; Phospho-TPPP (Ser18) Antibody; 25kDa brain specific protein; 25kDa brain-specific protein; Brain specific protein p25 alpha; Glycogen synthase kinase 3 (GSK3) inhibitor p24; OTTHUMP00000161630; p24; p25; p25-alpha; p25alpha; TPPP/p25; TPPP_HUMAN; TPPP1; Tubulin polymerization promoting protein; Tubulin polymerization-promoting protein; anti-TPPP antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (89%), Dog (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-TPPP (Ser18) Antibody detects endogenous levels of TPPP only when phosphorylated at Ser18. Tissue Specificity: Widely expressed.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-TPPP antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA (Peptide ELISA)
Application Notes	WB: 1:1000-3000 IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human TPPP around the phosphorylation site of Ser18.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated by LIMK1 on serine residues; phosphorylation may alter the tubulin polymerization activity. Phosphorylation by LIMK2, but not LIMK1, regulates astral microtubule organization at early stage of mitosis. Phosphorylation by ROCK1 at Ser-32, Ser-107 and Ser-159 inhibits interaction with HDAC6, resulting in increased acetylation of tubulin, increased cell motility and entry into S-phase. Phosphorylation by CDK1 inhibits the microtubule polymerizing activity. Degraded by the proteasome; zinc-binding inhibits degradation by the proteasome.
Subunit Structure	Homodimer. Binds tubulin; binding is inhibited by GTP. Interacts with MAPK1 (By similarity). Interacts with GAPDH; the interaction is direct (By similarity). Interacts with LIMK1 (via the PDZ domain); the interaction is direct. Interacts with LIMK2. Interacts with HDAC6; thereby inhibiting the tubulin deacetylase activity of HDAC6. Interacts with aggregated SNCA; may have a pro-aggregatory role in synucleinopathies. Interacts with DYNLL1.
Similarity	Most of the protein is composed of disordered regions (PubMed:21316364). Zinc-binding induces structural rearrangement by promoting molten globule state formation (PubMed:21995432). Belongs to the TPPP family.

Subcellular Location	Postsynaptic Golgi apparatus. Cytoplasm>Cytoskeleton>Microtubule organizing center. 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).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
At 1/100 staining Human gastric cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human gastric cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human kidney cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human ovarian cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-TPPP antibody	Regulator of microtubule dynamics that plays a key role in myelination by promoting elongation of the myelin sheath. 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. Required for both uniform polarized growth of distal microtubules as well as directing the branching of proximal processes. Shows magnesium-dependent GTPase activity; the role of the GTPase activity is unclear. In addition to microtubule nucleation activity, also involved in microtubule bundling and stabilization of existing microtubules, thereby maintaining the integrity of the microtubule network. Regulates microtubule dynamics by promoting tubulin acetylation: acts by inhibiting the tubulin deacetylase activity of HDAC6. Also regulates cell migration: phosphorylation by ROCK1 inhibits interaction with HDAC6, resulting in increased acetylation of tubulin and increased cell motility. Plays a role in cell proliferation by regulating the G1/S-phase transition. Involved in astral microtubule organization and mitotic spindle orientation during early stage of mitosis; this process is regulated by phosphorylation by LIMK2.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	5902018
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NCBI GeneID	11076
NCBI Accession #	NP_008961.1
NCBI GenBank Nucleotide #	NM_007030.2
UniProt Accession #	O94811
Molecular Weight	23,694 Da
NCBI Official Full Name	tubulin polymerization-promoting protein
NCBI Official Synonym Full Names	tubulin polymerization promoting protein
NCBI Official Symbol	TPPP
NCBI Official Synonym Symbols	p24; p25; TPPP1; TPPP/p25; p25alpha
NCBI Protein Information	tubulin polymerization-promoting protein; p25-alpha; 25 kDa brain-specific protein; brain specific protein p25 alpha; glycogen synthase kinase 3 (GSK3) inhibitor p24
UniProt Protein Name	Tubulin polymerization-promoting protein
UniProt Gene Name	TPPP
UniProt Synonym Gene Names	TPPP1; TPPP
UniProt Entry Name	TPPP_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/tppp-antibody-western-blot-immunohistochemistry-peptide-elisa-elisa/31436>