

Product datasheet for RN212676

Tppp (NM_001108461) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tppp (NM_001108461) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Tppp
Synonyms:	RGD1310121
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN212676 representing NM_001108461 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGACAGCAAGGCCAAGCCACCAAAGCTGCCAACAAAGACACCACCAAGTCCCCAGGAGACCCAG
CCAAGGCTGCTAAGAGGTTGTCGCTGGAGTCAGAGGGGGCCAATGAGGGTGCAGCTGCAGCCCCTGAGCT
CAGTGCCTGGAGGAGCCTTCCGGCGTTTGCAGTACACGGGGACACAGGGCCACAGGAAAGGAGATG
CACGGCAAGAAGTGGTCAAAGTGTGCAAGGACTGCCACGTGATCGACGGGAAGAAGCTGACCGTACCCG
ACGTGGACATCGTCTTCAGCAAGATCAAAGGGAAGTCTGCAGGACCATCACCTTTGAGCAGTTCAGGA
GGCACTGGAGAACTGGCCAAGAAGCGTTCAAGGATAAGAGCAGCGAGGAAGCCGTGCGTGAGGTGCAC
CGACTCATCGAGGGCCGAGCACCAGTCATCTCTGGCGTCACGAAAGCTGTGTCCTCACCCACAGTGTAC
GGCTCACGGATACCAGCAAGTTCACAGGCTCCACAAAGAGCGCTTCGACCAATCAGGAAAGGGCAAGGG
CAAAGTGGCCGCTGGACCTGGTGGATGAGTCAGGCTACGTGCCTGTTACAAGCATGCGGGCACCTAT
GACCAGAAGGTGCAGGGGGCAAGTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms:	https://cdn.origene.com/chromatograms/ja3458_e07.zip
Restriction Sites:	Sgfl-Mlul
ACCN:	NM_001108461
Insert Size:	657 bp



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OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001108461.1](#), [NP_001101931.1](#)

RefSeq Size: 1020 bp

RefSeq ORF: 657 bp

Locus ID: 361466

UniProt ID: [D3ZQL7](#)

Cytogenetics: 1p11

Gene Summary:

Regulator of microtubule dynamics that plays a key role in myelination by promoting elongation of the myelin sheath (PubMed:19606501). 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 (By similarity). Required for both uniform polarized growth of distal microtubules as well as directing the branching of proximal processes (By similarity). Shows magnesium-dependent GTPase activity; the role of the GTPase activity is unclear (By similarity). In addition to microtubule nucleation activity, also involved in microtubule bundling and stabilization of existing microtubules, thereby maintaining the integrity of the microtubule network (By similarity). Regulates microtubule dynamics by promoting tubulin acetylation: acts by inhibiting the tubulin deacetylase activity of HDAC6 (By similarity). Also regulates cell migration: phosphorylation by ROCK1 inhibits interaction with HDAC6, resulting in increased acetylation of tubulin and increased cell motility (By similarity). Plays a role in cell proliferation by regulating the G1/S-phase transition (By similarity). Involved in astral microtubule organization and mitotic spindle orientation during early stage of mitosis; this process is regulated by phosphorylation by LIMK2 (By similarity).[UniProtKB/Swiss-Prot Function]