

Product datasheet for **SC109404**

Tau (MAPT) (NM_016841) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tau (MAPT) (NM_016841) Human Untagged Clone
Tag:	Tag Free
Symbol:	Tau
Synonyms:	DDPAC; FTDP-17; MAPTL; MSTD; MTBT1; MTBT2; PPND; PPP1R103; TAU; tau-40
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC109404 sequence for NM_016841 edited (data generated by NextGen Sequencing)

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ATGGCTGAGCCCCGCCAGGAGTTGGAAGTATGGAAGATCACGCTGGGACGTACGGGTTG
GGGACAGGAAAGATCAGGGGGCTACACCATGCACCAAGACCAAGAGGGTGACACGGAC
GCTGGCCTGAAAGCTGAAGAAGCAGGCATTGGAGACACCCCCAGCCTGGAAGACGAAGCT
GCTGGTACGTGACCCAAGCTCGCATGGTCAAGTAAAAGCAAAGACGGGACTGGAAGCGAT
GACAAAAAAGCCAAGGGGGCTGATGGTAAAACGAAGATCGCCACACCGCGGGGAGCAGCC
CCTCCAGGCCAGAAGGGCCAGGCCAACGCCACCAGGATTCCAGCAAAAACCCCGCCCGCT
CCAAAGACACCACCCAGCTCTGGTGAACCTCCAAAATCAGGGGATCGCAGCGGCTACAGC
AGCCCCGGCTCCCAGGCACTCCCGGCAGCCGCTCCCGCACCCCGTCCCTTCCAACCCCA
CCCACCCGGGAGCCCAAGAAGGTGGCAGTGGTCCGTAATCCACCAAGTCGCCGTCTTCC
GCCAAGAGCCCGCTGCAGACAGCCCCGTGCCATGCCAGACCTGAAGAATGTCAAGTCC
AAGATCGCTCCACTGAGAACCTGAAGCACCAGCCGGGAGGCGGGAAAGGTGCAAATAGTC
TACAAACCAGTTGACCTGAGCAAGGTGACCTCAAAGTGTGGCTCATTAGGCAACATCCAT
CATAAACCAGGAGGTGGCCAGGTGGAAGTAAAATCTGAGAAGCTTGACTTCAAGGACAGA
GTCCAGTCGAAGATTGGGTCCCTGGACAATATCACCCACGTCCCTGGCGGAGGAAATAAA
AAGATTGAAACCCACAAGCTGACCTTCCGCGAGAACGCCAAAGCCAAGACAGACCACGGG
GCGGAGATCGTGTACAAGTCGCCAGTGGTGTCTGGGACACGTCTCCACGGCATCTCAGC
AATGTCTCCTCCACCGGCAGCATCGACATGGTAGACTCGCCCCAGCTCGCCACGCTAGCT
GACGAGGTGTCTGCCTCCCTGGCCAAGCAGGGTTTGTGA

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Clone variation with respect to NM_016841.4



[View online »](#)

5' Read Nucleotide Sequence:

```
>OriGene 5' read for NM_016841 unedited
TTGTATACGACTCATATAGGCGGCCGACATTCGCACGAAGGGACCGCGAAGGGCAGCG
CCGAGAGGAAACGAGCCGGGAGACGCCGGACGGCCGAGCGGCAGGGCGCTCGCGCGGCC
CACTAGTGGCCGAGGAGAAGGCTCCCAGCGAGGCCGCGCTGCCCGCCCCCTCCCTGGG
GAGGCTCGCGTCCCCTGCTCGCGCTGCGCCGCCCGCCGGCCCTCAGGAACGCGCCCTC
TTCGCCGGCGCGCCCTCGCAGTACCAGCCACCACAGCTCCGGCACCAACAGCAGCG
CCGCTGCCACCGCCACCTTCTGCCGCCACCACAGCCACCTTCTCCTCCTCCGCTGT
CCTCTCCCGTCCCTCGCCTCTGTGACTATCAGGTGAACTTTGAACCAGGATGGCTGAGCC
CCGCCAGGAGTTCGAAGTGATGGAAGATCACGCTGGGACGTACGGGTTTGGGGGACAGGA
AAGATCAAGGGGGCTACACCATGCACCAAGACCAAGAGGGTGACACGGACGCTGGCCTGA
AAGCTGAAGAAGCAGGCATTGGAGACACCCCGAGCCTGGAAGACGAAGCTGCTGGTCAG
TGACCAAGCTCGCATGGTCAGTAAAAGCAAAGACGGGACTGGAAGCGATGACAAAAA
GCCAAGGGGCTGATGGTAAAACGAAGATCGCCACACCGGGGGAGCAGCCCTCCAGC
CCAGAAGGGGCCAGGCCAACGCCACCCAGATTCCAGCANAAACCCGCCCGCTCCAAAGA
ACACCACAGCTTCTGGTGAACCTCAAATCCANGGGGATCGCCAGCGGCTACAGCAGCC
CCGGCTCCCCAGCACTCCCGGGAGCCGTTTCCCGAACCCGTCCTTCA
```

3' Read Nucleotide Sequence:

```
>OriGene 3' read for NM_016841 unedited
NTATTACTNAGNAACCGCGCCGAATCTANGATCGAGTTTTTTTTTTTTTTTTTTTATTA
CTAGCCCACCCATCAATTTGNGAAAGATGAAATTTGCTCTTACTCCCATCACTGATTTG
AAGTCCCAGCCAAAGCCGAGTGACAAAAGCAGGTTAAGTGATTAACCAATTAACCGAAC
TGCGAGGAGCAGCTGGGGCAGAGGGCGGGGGCCGGGTCATTATCTTTTTTTTTTCCACA
CTCTCTATTCTCTCCTCTCCACAATTATTGACCGCCCCAGGGGCTGATCACAACCCT
GCTTGGCCAGGGAGGCAGACACCTCGTCAGCTAGCGTGGCGAGCTGGGGCGAGTCTACCA
TGTCGATGCTGCCGGTGGAGGAGACATTGCTGAGATGCCGTGGAGACGTGTCCCCAGACA
CCACTGGCGACTTGTACACGATCTCCGCCCGTGGTCTGTCTTGGCTTTGGCGTTCTCGC
GGAAGGTCAGCTTGTGGGTTTCAATCTTTTTATTTCTCCGCCAGGGACGTGGGTGATAT
TGTCCAGGGACCAATCTTCGACTGGACTCTGTCTTGAAGTCAAGCTTCTCAGATTTTA
CTTCCACCTGGCCACCTCCTGGTTATGATGGATGTTGCCTAATGAGCCACACTTGGAGG
TCACCTTGCTCAAGTCAACTGGTTTGTAGACTATTTGCACCTTCCCGCCCTCCGGCTGGT
GCCTTCAGTTCTCAGTGGAGCCGATCCTGGACTTTGACATTCTTAGGTCTGGCAGGGGCA
CGGGGGTGTCTGGCAGGCGCTTTGGGGAAAACGGCCACCTGGGTGGAGTTCGGACCA
CTGGCCACCTCTTGGGGCCCCGGTGGTGGGGTTTAAAAGCACCGTTTCCCCTATATAC
CTGCGCGGTAGCA
```

Restriction Sites:

NotI-NotI

ACCN:

NM_016841

Insert Size:

1700 bp

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.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

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_016841.1](#), [NP_058525.1](#)

RefSeq Size: 2529 bp

RefSeq ORF: 1059 bp

Locus ID: 4137

UniProt ID: [P10636](#)

Cytogenetics: 17q21.31

Domains: tubulin-binding

Protein Families: Druggable Genome

Protein Pathways: Alzheimer's disease, MAPK signaling pathway

Gene Summary:

This gene encodes the microtubule-associated protein tau (MAPT) whose transcript undergoes complex, regulated alternative splicing, giving rise to several mRNA species. MAPT transcripts are differentially expressed in the nervous system, depending on stage of neuronal maturation and neuron type. MAPT gene mutations have been associated with several neurodegenerative disorders such as Alzheimer's disease, Pick's disease, frontotemporal dementia, cortico-basal degeneration and progressive supranuclear palsy. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (4) lacks six internal coding exons, as compared to variant 6. The reading frame is not affected, and the resulting isoform (4) has identical N- and C-termini but lacks five segments, as compared to isoform 6. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.