

## Product datasheet for **RG225648**

### Tau (MAPT) (NM\_001123067) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tau (MAPT) (NM_001123067) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tau
Synonyms:	DDPAC; FTDP-17; MAPTL; MSTD; MTBT1; MTBT2; PPND; PPP1R103; TAU; tau-40
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG225648 representing NM_001123067 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGAGCCCCGCCAGGAGTTCTGAAGTATGGAAGATCACGCTGGGACGTACGGGTTGGGGACAGGA  
AAGATCAGGGGGCTACACCATGCACCAAGACCAAGAGGGTGACACGGACGCTGGCCTGAAAGAATCTCC  
CCTGCAGACCCCCACTGAGGACGGATCTGAGGAACCGGGCTCTGAAACCTCTGATGCTAAGAGCACTCCA  
ACAGCGGAAGCTGAAGAAGCAGGCATTGGAGACACCCCCAGCCTGGAAGACGAAGCTGCTGGTCACGTGA  
CCCAAGCTCGCATGGTCAGTAAAAGCAAAGACGGGACTGGAAGCGATGACAAAAAGCCAAGGGGCTGA  
TGGTAAAACGAAGATCGCCACACCGGGGAGCAGCCCTCCAGGCCAGAAGGGCCAGGCCAACGCCACC  
AGGATTCAGCAAAAACCCCGCCGCTCCAAGACACCCAGCTCTGGTGAACCTCCAAAATCAGGGG  
ATCGCAGCGGCTACAGCAGCCCCGGCTCCCCAGGCACTCCCGCAGCCGCTCCCGCACCCCGTCCCTTCC  
AACCCACCCACCCGGGAGCCCAAGAAGGTGGCAGTGGTCCGTAATCCACCAAGTCGCCGTCTTCCGCC  
AAGAGCCGCTGCAGACAGCCCCGTGCCATGCCAGACCTGAAGAATGTCAAGTCCAAGATCGGCTCCA  
CTGAGAACCTGAAGCACCAGCCGGGAGGCGGAAGGTGCAGATAATTAATAAGAAGCTGGATCTTAGCAA  
CGTCCAGTCCAAGTGTGGCTCAAAGGATAATATCAAACACGTCCGGGAGCGGCAGTGTGCAAAATAGTC  
TACAAACCAGTTGACCTGAGCAAGGTGACCTCCAAGTGTGGCTCATTAGGCAACATCCATCATAAACCAG  
GAGGTGGCCAGGTGGAAGTAAAATCTGAGAAGCTTGACTTCAAGGACAGAGTCCAGTCAAAGATTGGGTC  
CCTGGACAATATCACCCAGTCCCTGGCGGAGGAAATAAAAAGATTGAAACCCACAGCTGACCTCCGC  
GAGAACGCCAAAGCCAAGACAGACCACGGGGCGGAGATCGTGTACAAGTCGCCAGTGGTGTCTGGGGACA  
CGTCTCCAGGCATCTCAGCAATGTCTCTCCACCGGCAGCATCGACATGGTAGACTCGCCCCAGCTCGC  
CACGCTAGCTGACGAGGTGTCTGCCTCCCTGGCCAAGCAGGGTTTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG225648 representing NM\_001123067  
 Red=Cloning site Green=Tags(s)

MAEPRQEFVEMDHAGTYGLGDRKDQGGYTMHQDQEGDTDAGLKESPLQPTEDGSEEPGSETSDAKSTP  
 TAEAEAEAGIGDTPSLEDEAAGHVTVQARMVSKSKDGTGSDDKKAKAGADGKTKIATPRGAAPPQKGGQANAT  
 RIPAKTPPAPKTPPSSGEPKSGDRSGYSSPGSPGTPGSRSRTPSLPTPTREPKKVAVVRTPPKSPSSA  
 KSRLQTAPVPMDDLKNVSKIGSTENLKHQPGGGKQVI INKKLDLSNVQSKCGSKDNIKHVPGGGSVQIV  
 YKPVDL SKVTSKCGSLGNIHHPGGGQVEYKSEKLD FKDRVQSKIGSLDNI THVPGGKNKIETHKLTFR  
 ENAKAKTDHGAEIVYKSPVSGDTSRHL SNVSTGSIDMVDSPQLATLADEV SASLAKQGL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001123067

**ORF Size:** 1236 bp

**OTI Disclaimer:** 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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_001123067.3](#)

**RefSeq Size:** 5724 bp

**RefSeq ORF:** 1239 bp

**Locus ID:** 4137

**UniProt ID:** [P10636](#)

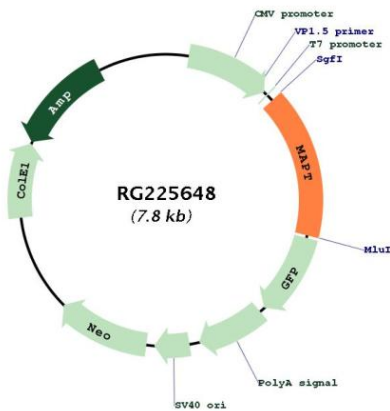
**Cytogenetics:** 17q21.31

**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]

**Product images:**



Circular map for RG225648