

## Product datasheet for **RC213312**

### Tau (MAPT) (NM\_005910) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tau (MAPT) (NM_005910) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tau
Synonyms:	DDPAC; FTDP-17; MAPTL; MSTD; MTBT1; MTBT2; PPND; PPP1R103; TAU; tau-40
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC213312 representing NM\_005910  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGAGCCCCGCCAGGAGTTGGAAGTATGGAAGATCACGCTGGGACGTACGGTTGGGGACAGGA  
 AAGATCAGGGGGCTACACCATGCACCAAGACCAAGAGGGTGACACGGACGCTGGCTGAAAGAATCTCC  
 CCTGCAGACCCCCACTGAGGACGGATCTGAGGAACCGGGCTCTGAAACCTCTGATGCTAAGAGCACTCCA  
 ACAGCGGAAGATGTGACAGCACCTTAGTGGATGAGGGAGCTCCCGCAAGCAGGCTGCCGCGCAGCCCC  
 ACACGGAGATCCCAGAAGGAACACAGCTGAAGAAGCAGGCATTGGAGACACCCCGCAGCTGGAAGACGA  
 AGCTGCTGGTACGTCACCAAGCTCGCATGGTCAAGTAAAAGCAAAGACGGGACTGGAAGCGATGACAAA  
 AAAGCAAAGGGGGCTGATGGTAAAACGAAGATCGCCACACCGGGGAGCAGCCCTCCAGGCCAGAAGG  
 GCCAGGCCAACGCCACCAGGATCCAGCAAAAACCCCGCCGCTCAAAGACACCACCCAGCTCTGGTGA  
 ACCTCCAAAATCAGGGGATCGCAGCGGCTACAGCAGCCCGGCTCCCGCAGCACTCCCGCAGCCGCTCC  
 CGACCCCGTCCCTTCCAACCCACCCACCCGGGAGCCCAAGAAGGTGGCAGTGGTCCGTAATCCACCCA  
 AGTCGCGCTTCCCGCAAGAGCCGCTGCAGACAGCCCCGTCGCCATGCCAGACCTGAAGAATGTCAA  
 GTCCAAGATCGGCTCCACTGAGAACCTGAAGCACCAGCCGGGAGGCGGGAAGGTGCGAGATAATTAATAAG  
 AAGCTGGATCTTAGCAACGTCCAGTCCAAGTGTGGCTCAAAGGATAATATCAAACACGTCCCGGGAGGCG  
 GCAGTGTGCAATAGTCTACAAACAGTTGACCTGAGCAAGGTGACCTCCAAGTGTGGCTCATTAGGCAA  
 CATCCATCATAAACCAGGAGGTGCCAGGTGGAAGTAAAATCTGAGAAGCTTGACTTCAAGGACAGAGTC  
 CAGTCGAAGATTGGGTCCTGGACAATATCACCCACGTCCCTGGCGGAGGAAATAAAAAGATTGAAACCC  
 ACAAGCTGACCTCCCGCAGAACGCCAAAGCCAAGACAGACCAGGGGGCGGAGATCGTGTACAAGTCGCC  
 AGTGGTGTCTGGGGACAGTCTCCACGGCATCTCAGCAATGTCTCTCCACCGGCAGCATCGACATGGTA  
 GACTCGCCCCAGCTGCCACGCTAGCTGACGAGGTGTCTGCCTCCCTGGCCAAGCAGGGTTTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC213312 representing NM\_005910  
 Red=Cloning site Green=Tags(s)

MAEPRQEFVEMDHAGTYGLGDRKDQGGYTMHQDQEGDTDAGLKESPLQTPTEGSEEPGSETSDAKSTP  
 TAEDVTAPLVDEGAPGKQAAAQPHTEIPEGTTAEAGIGDTPSLEDEAAGHVTQARMVSKSKDGTGSDDK  
 KAKGADGKTKIATPRGAAPPQKQANATRIPAKTPPAPKTPPSSGEPKSGDRSGYSSPGSPGTPGSR  
 RTPSLTPPTREPKKVAVVRTPPKSPSSAKSRLQTAPVPMPDLKNVSKIGSTENLKHQPGGGKVQIINK  
 KLDL SNVQSKCGSKDNIKHVPGGGSVQIVYKPVDL SKVTSKCGSLGNIHHKPGGGQVEVKSEKLDKDRV  
 QSKIGSLDNIHVPGGKNKIETHKLTFRENAKAKTDHGAEIVYKSPVVS GDTSPRHL SNVSTGSIDMV  
 DSPQLATLADEV SASLAKQL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6159\\_g03.zip](https://cdn.origene.com/chromatograms/mk6159_g03.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_005910

**ORF Size:** 1323 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_005910.5](#)

**RefSeq Size:** 5731 bp

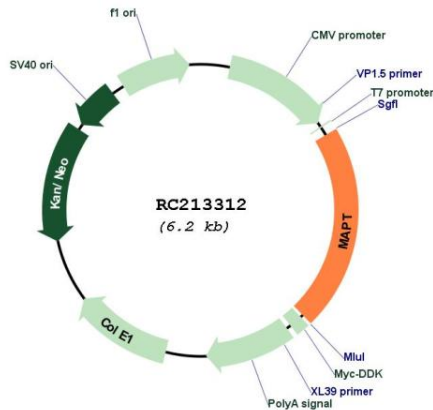
**RefSeq ORF:** 1326 bp

**Locus ID:** 4137

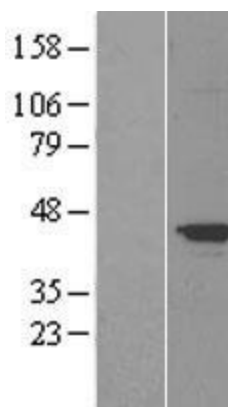
**UniProt ID:** [P10636](#)  
**Cytogenetics:** 17q21.31  
**Domains:** tubulin-binding  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Alzheimer's disease, MAPK signaling pathway  
**MW:** 45.7 kDa

**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]

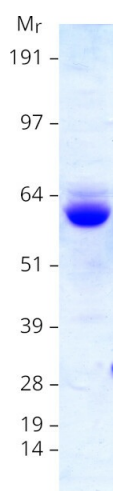
### Product images:



Circular map for RC213312



Western blot validation of overexpression lysate (Cat# [LY401790]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213312 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAPT protein (Cat# [TP313312]). The protein was produced from HEK293T cells transfected with MAPT cDNA clone (Cat# RC213312) using MegaTran 2.0 (Cat# [TT210002]).