

Product datasheet for RC217773

Tau (MAPT) (NM_016834) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tau (MAPT) (NM_016834) 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)
ORF Nucleotide Sequence:	>RC217773 representing NM_016834 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGAGCCCCGCCAGGAGTTCGAAGTATGGAAGATCACGCTGGGACGTACGGGTTGGGGGACAGGA
AAGATCAGGGGGCTACACCATGCACCAAGACCAAGAGGGTGACACGGACGCTGGCCTGAAAGCTGAAGA
AGCAGGCATTGGAGACACCCCGCCTGGAAGACGAAGCTGCTGGTCACGTGACCCAAGCTCGCATGGTC
AGTAAAAGCAAAGACGGGACTGGAAGCGATGACAAAAAGCCAAGGGGGCTGATGGTAAAACGAAGATCG
CCACACCGCGGGAGCAGCCCTCCAGGCCAGAAGGGCCAGGCCAACGCCACCAGGATCCAGCAAAAAC
CCGCCCCGCTCCAAAGACACCACCCAGCTCTGGTGAACCTCCAAAATCAGGGGATCGCAGCGGCTACAGC
AGCCCCGGCTCCCCAGGCACTCCCGGCAGCCGCTCCCGCACCCCGTCCCTTCCAACCCACCCACCCGGG
AGCCCAAGAAGGTGGCAGTGGTCCGTACTCCACCAAGTCGCCGTCTTCCGCCAAGAGCCGCTGCAGAC
AGCCCCCGTGCCCATGCCAGACCTGAAGAATGTCAAGTCCAAGATCGGCTCCACTGAGAACCTGAAGCAC
CAGCCGGGAGGCGGAAGGTGCAGATAATTAAGAAGTGGATCTTAGCAACGTCCAGTCCAAGTGTG
GCTCAAAGGATAATATCAAACACGTCCCGGGAGGCGGAGTGTGCAAATAGTCTACAACCAAGTTGACCT
GAGCAAGGTGACCTCAAAGTGTGGCTCATTAGGCAACATCCATCATAAACCAGGAGGTGGCCAGGTGGAA
GTAAAATCTGAGAAGCTTGACTTCAAGGACAGAGTCCAGTGAAGATTGGTCCCTGGACAAATATCACCC
AGTCCCTGGCGGAGGAAATAAAAAGATTGAAACCCACAAGCTGACCTTCCGCGAGAACGCCAAAGCCAA
GACAGACCACGGGGCGGAGATCGTGTACAAGTCGCCAGTGGTGTCTGGGACACGCTCCACGGCATCTC
AGCAATGTCTCTCCACCGGCAGCATCGACATGGTAGACTCGCCCCAGCTCGCCACGCTAGCTGACGAGG
TGTCTGCCTCCCTGGCCAAGCAGGGTTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC217773 representing NM_016834
Red=Cloning site Green=Tags(s)

MAEPRQEFVEMDHAGTYGLGDRKDQGGYTMHQDQEGDTDAGLKAEAEAGIGDTPSLEDEAAGHVTQARMV
 SKSKDGTGSDDKKAKGADGKTKIATPRGAAPPQKQGANATRIPAKTPPAPKTPPSSGEPKSGDRSGYS
 SPGSPGTPGSRSRTPSLPTPTREPKKVAVVRTPPKSPSSAKSRLQTAPVMPDLKNVSKIGSTENLKH
 QPGGGKVVQIINKKLDL SNVQSKCGSKDNIKHVPGGGQSVQIVYKPVDL SKVTSKCGSLGNIHHKPGGGQVE
 VKSEKLDKDRVQSKIGSLDNITHVPGGNKKIETHKLTFRENAKAKTDHGAEIVYKSPVVSVDTSRHL
 SNVSTGSIDMVDSPLATLADEVASLAKQGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2783_b05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_016834

ORF Size: 1149 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_016834.5](#)

RefSeq Size: 5557 bp

RefSeq ORF: 1152 bp

Locus ID: 4137

UniProt ID: [P10636](#)

Cytogenetics: 17q21.31

Domains: tubulin-binding

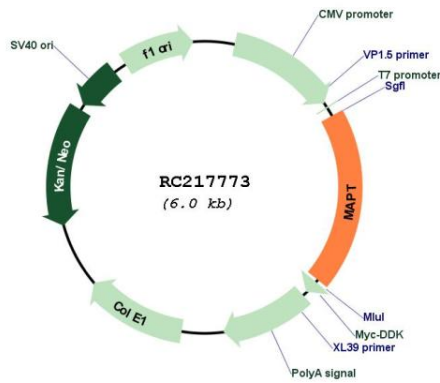
Protein Families: Druggable Genome

Protein Pathways: Alzheimer's disease, MAPK signaling pathway

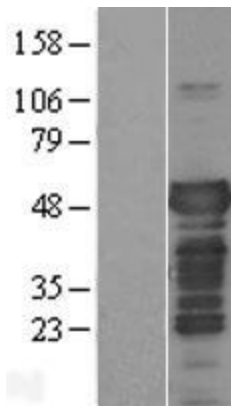
MW: 39.8 kDa

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]

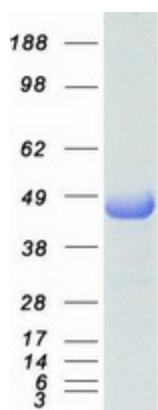
Product images:



Circular map for RC217773



Western blot validation of overexpression lysate (Cat# [LY413819]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217773 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAPT protein (Cat# [TP317773]). The protein was produced from HEK293T cells transfected with MAPT cDNA clone (Cat# RC217773) using MegaTran 2.0 (Cat# [TT210002]).