

Product datasheet for **RC215488**

mtTFA (TFAM) (NM_003201) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	mtTFA (TFAM) (NM_003201) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TFAM
Synonyms:	MTDPS15; MTTF1; MTTFA; TCF6; TCF6L1; TCF6L2; TCF6L3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215488 representing NM_003201 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGTTTCTCCGAAGCATGTGGGGCGTGCTGAGTGCCTGGGAAGGTCTGGAGCAGAGCTGTGCACCG
GCTGTGGAAGTCGACTGCGCTCCCCCTCAGTTTTGTGTATTTACCGAGGTGGTTTTTCATCTGTCTTGGC
AAGTTGTCCAAAGAACTGTAAGTTCTACCTTCGATTTTCTAAAGAACAACATCCCATATTTAAAGCT
CAGAACCAGATGCAAAAACACAGAATAATTAGAAGAATTGCCAGCGTTGGAGGGAACCTCCTGATT
CAAAGAAAAAATATATCAAGATGCTTATAGGGCGGAGTGGCAGGTATATAAAGAAGAGATAAGCAGATT
TAAAGAACAGCTAACTCCAAGTCAGATTATGTCTTTGGAAAAAGAAATCATGGACAAACATTTAAAAGG
AAAGCTATGACAAAAAAGAGTTAACACTGCTTGGAAAAACAAAAGACCTCGTTACGCTTATAACG
TTTATGTAGTGAAAGATTCCAAGAAGCTAAGGGTGATTCACCGCAGGAAAAGCTGAAGACTGTAAGGA
AACTGGAAAAATCTGTCTGACTCTGAAAAGGAATTATATATTCAGCATGCTAAAGAGGACGAAACTCGT
TATCATAATGAAATGAAGTCTTGGGAAGAACAATGATTGAAGTTGGACGAAAGGATCTTCTACGTCGCA
CAATAAAGAAACAACGAAAATATGGTGCTGAGGAGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC215488 representing NM_003201
 Red=Cloning site Green=Tags(s)

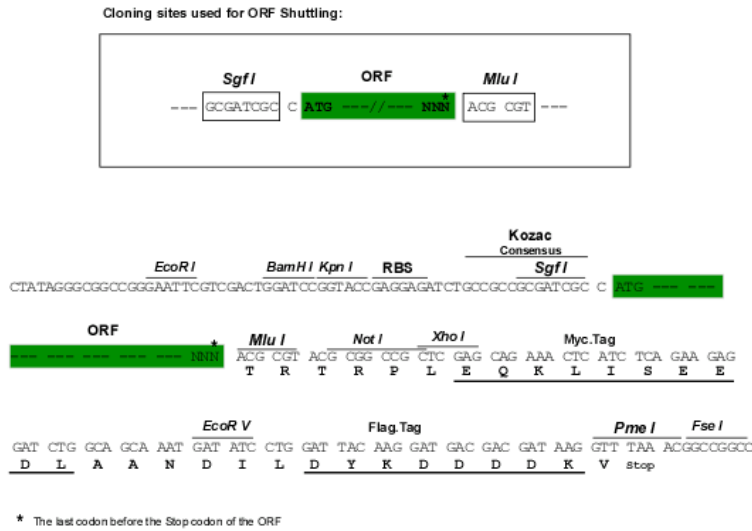
MAFLRSMWGVLSALGRSGAELCTGCGSRLRSPFSFVYLPRWFSSVLASCPKPKPVSSYLRFSSKEQLPIFKA
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 KAMTKKKELTLLGKPKRPRSAYNVVVAERFQEAKGDSPOEKLKTVKENWKNLSDSEKELYIQHAKEDETR
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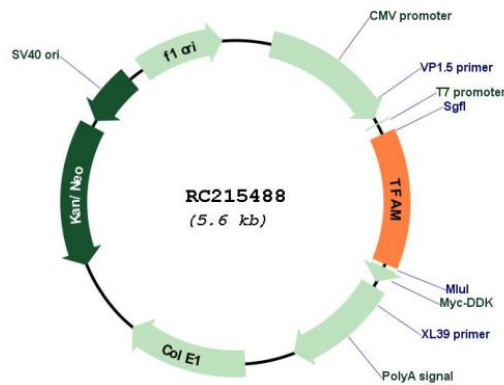
Chromatograms: https://cdn.origene.com/chromatograms/mg2412_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_003201

ORF Size: 738 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](#)

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_003201.3](#)

RefSeq Size: 1936 bp

RefSeq ORF: 741 bp

Locus ID: 7019

UniProt ID: [Q00059](#)

Cytogenetics: 10q21.1

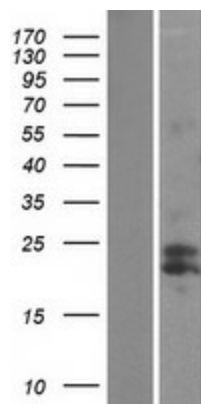
Domains: HMG

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Huntington's disease

MW: 29.1 kDa

Gene Summary: This gene encodes a key mitochondrial transcription factor containing two high mobility group motifs. The encoded protein also functions in mitochondrial DNA replication and repair. Sequence polymorphisms in this gene are associated with Alzheimer's and Parkinson's diseases. There are pseudogenes for this gene on chromosomes 6, 7, and 11. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2012]

Product images:

Western blot validation of overexpression lysate (Cat# [LY401108]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215488 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).