

## Product datasheet for **RG233462**

### mtTFA (TFAM) (NM\_001270782) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** mtTFA (TFAM) (NM\_001270782) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** mtTFA  
**Synonyms:** MTDP515; MTTF1; MTTFA; TCF6; TCF6L1; TCF6L2; TCF6L3  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG233462 representing NM\_001270782  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGTTTCTCCGAAGCATGTGGGGCGTGCTGAGTGCCTGGGAAGTCTGGAGCAGAGCTGTGCACCG  
GCTGTGGAAGTCGACTGCGCTCCCCCTCAGTTTTGTGATTTACCGAGGTGTTTTTCATCTGTCTTGGC  
AAGTTGCCAAAGAAACCTGTAAGTTCTACCTTCGATTTCTAAAGAACAACATCCCATATTTAAAGCT  
CAGAACCAGATGCAAAAACACAGAATAATTAGAAGAATTGCCAGCGTTGGAGGGAACCTTCCTGATT  
CAAAGAAAAAATATATCAAGATGCTTATAGGGCGGAGTGGCAGGTATATAAAGAAGAGATAAGCAGATT  
TAAAGAACAGCTAACTCCAAGTCAGATTATGTCTTTGGAAAAAGAAATCATGGACAAACATTTAAAAAGG  
AAAGCTATGACAAAAAAGAAAAGCTGAAGACTGTAAAGGAAAACCTGAAAAATCTGTCTGACTCTG  
AAAAGGAATTATATTCAGCATGCTAAAGAGGACGAACTCGTTATCATAATGAAATGAAGTCTTGGGA  
AGAACAATGATTGAAGTTGGACGAAAGGATCTTCTACGTCGCACAATAAAGAAACAACGAAAAATATGGT  
GCTGAGGAGTGT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG233462 representing NM\_001270782  
 Red=Cloning site Green=Tags(s)

MAFLRSMWGVLSALGRSGAELCTGCGSRLRSPFSFVYLPRWFSSVLASCPKPKPVSSYLRFSSKEQLPIFKA  
 QNPDAKTTELIRRIAQRWRELPDSKKKIYQDAYRAEWQVYKEEISRFKEQLTPSQIMSLEKEIMDKHLKR  
 KAMTKKKEKLKTVKENWKNLSDSEKELYIQHAKEDTRYHNEMKSWEEQMIIEVGRKDLLRRTIKKQRKYG  
 AEEC

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001270782

**ORF Size:** 642 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\\_001270782.1](#), [NP\\_001257711.1](#)

**RefSeq Size:** 5223 bp

**RefSeq ORF:** 645 bp

**Locus ID:** 7019

**UniProt ID:** [Q00059](#)

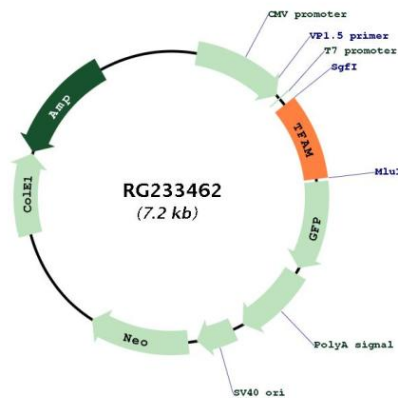
**Cytogenetics:** 10q21.1

**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** Huntington's disease

**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:



Circular map for RG233462