

## Product datasheet for MR225557

### Tardbp (NM\_001003898) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Tardbp (NM\_001003898) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Tardbp  
**Synonyms:** 1190002A23Rik; C85084; TDP-43; Tdp43  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR225557 representing NM\_001003898  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCTGAATATATTCGGGTAACAGAAGATGAGAACGATGAACCCATTGAAATACCATCAGAAGACGATG  
 GGACGGTGTGCTGTCCACAGTTACAGCCAGTTCCAGGGGCATGCGGCCTGCGCTACCGGAATCCCGT  
 GTCTCAGTGTATGAGAGGAGTCCGACTGGTGGAAAGGAATTCTGCATGCCCCAGATGCTGGCTGGGGCAAT  
 CTGGTATATGTTGTCAACTATCCCAAAGATAACAAAAGGAAAATGGATGAGACAGATGCTTCCTCTGCAG  
 TGAAGTGAAGAGCAGTCCAGAAAACATCTGACCTCATAGTGTGGGTCTCCCCTGAAAACAACCTGA  
 GCAGGATCTGAAAGACTATTTTCAGTACTTTTGGAGAGGTTCTTATGGTTCAGGTCAAGAAAGATCTTAAA  
 ACTGGTCACTCGAAAGGTTTGGCTTTGTTCGATTTACAGAATATGAAACCAAGTGAAGTAATGTCCAC  
 AACGACATATGATAGATGGGCGATGGTGTGACTGTAAACTTCCCAACTCTAAGCAAGGCCAGACGAGCC  
 TTTGAGAAGCAGAAAGGTGTTTGTGGACGTTGTACAGAGGACATGACTGCTGAAGAGCTTCAGCAGTTT  
 TTCTGTCAGTATGGAGAAGTGGTAGATGTCTTCATTCCAAACCATTAGAGCTTTTGCCTTCGTACCT  
 TTGCAGATGATAAGGTTGCCAGTCTCTTTGTGGAGAGGATTTGATCATTAAAGGAATCAGCGTGCATAT  
 ATCCAATGCTGAACCTAAGCATAATAGCAATAGACAGTTAGAAAGAAGTGAAGATTTGGTGGTAATCCA  
 GTTCATCTCATTCAAATGTTTATGGAAGAAGCACTTCATTGAAAGTAGTGCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR225557 representing NM\_001003898  
Red=Cloning site Green=Tags(s)

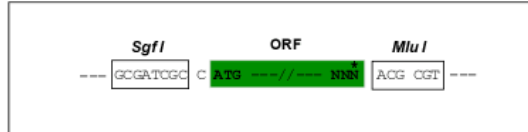
MSEYIRVTEDEDEPIEIPSEDDGTVLLSTVTAQFPGACGLRYRNPVSQCMRGVRLVEGILHAPDAGWGN  
 LVYVVNYPKDNKRKMDETDASSAVKVKRAVQKTS DLIVLGLPWKTEQDLKDYFSTFGEVLMVQVKKDLK  
 TGHSKGFGFVRFTEYETQVKVMSQRHMIDGRWCDCKLPNSKQSPDEPLRSRKVFVGRCTEDMTAEELQQF  
 FCQYGEVVDVFI PKPFRAFAFVTFADDKVAQSLCGEDLIIKGISVHISNAEPKHNSNRQLERSGRFGGNP  
 VHLLISNYYGRSTSLKVVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001003898

**ORF Size:** 894 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\\_001003898.3](#), [NP\\_001003898.1](#)

**RefSeq Size:** 6495 bp

**RefSeq ORF:** 897 bp

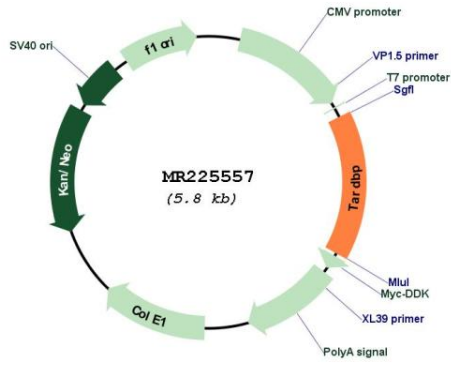
**Locus ID:** 230908

**Cytogenetics:** 4 E2

**MW:** 34 kDa

**Gene Summary:** RNA-binding protein that is involved in various steps of RNA biogenesis and processing. Preferentially binds, via its two RNA recognition motifs RRM1 and RRM2, to GU-repeats on RNA molecules predominantly localized within long introns and in the 3' UTR of mRNAs. In turn, regulates the splicing of many non-coding and protein-coding RNAs including proteins involved in neuronal survival, as well as mRNAs that encode proteins relevant for neurodegenerative diseases. Plays a role in maintaining mitochondrial homeostasis by regulating the processing of mitochondrial transcripts. Regulates also mRNA stability by recruiting CNOT7/CAF1 deadenylase on mRNA 3' UTR leading to poly(A) tail deadenylation and thus shortening. In response to oxidative insult, associates with stalled ribosomes localized to stress granules (SGs) and contributes to cell survival. Participates also in the normal skeletal muscle formation and regeneration, forming cytoplasmic myo-granules and binding mRNAs that encode sarcomeric proteins. Plays a role in the maintenance of the circadian clock periodicity via stabilization of the CRY1 and CRY2 proteins in a FBXL3-dependent manner (PubMed:27123980).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225557