

## Product datasheet for **MR204079**

### Tardbp (NM\_001003899) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tardbp (NM_001003899) 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:	>MR204079 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTCTGAATATATTCGGGTAACAGAAGATGAGAACGATGAACCCATTGAAATACCATCAGAAGACGATG  
GGACGGTGTGCTGTCCACAGTTACAGCCAGTTCCAGGGGCATGCGGCCTGCGCTACCGGAATCCCGT  
GTCTCAGTGTATGAGAGGAGTCCGACTGGTGGGAAGGAATTCTGCATGCCCCAGATGCTGGCTGGGGCAAT  
CTGGTATATGTTGTCAACTATCCCAAAGATAACAAAAGGAAAATGGATGAGACAGATGCTTCCTCTGCAG  
TGAAAGTGAAAAGAGCAGTCCAGAAAACATCTGACCTCATAGTGTGGGTCTCCCCTGAAAACAACCTGA  
GCAGGATCTGAAAGACTATTTTCAGTACTTTTGGAGAGGTTCTTATGGTTCAGGTCAAGAAAGATCTTAAA  
ACTGGTCACTCGAAAGGGTTTGGCTTTGTTCGATTTACAGAATATGAAACCAAGTGAAAGTAATGTCCAC  
AACGACATATGATAGATGGGCGATGGTGTGACTGTAAACTTCCCAACTCTAAGCAAAGGCCAGACGAGCC  
TTTGAGAAGCAGAAAGGTGTTTGTGGACGTTGTACAGAGGACATGACTGCTGAAGAGCTTCAGCAGTTT  
TTCTGTGAGTATGGAGAAGTGGTAGATGTCTTTCATTCCCAAACCTTCAGAGCTTTTGCCTTCGTCACCT  
TTGCAGATGATAAGGTTGCCAGTCTCTTTGTGGAGAGGATTTGATCATTAAAGGAATCAGCGTGCATAT  
ATCCAATGCTGAACCTAAGCATAATAGCAATAGACAGTTAGAAAGAAGTGAAGATTTGGTGTTCATCTC  
ATTTCAAATGTTTATGGAAGAAGCACTTCATTGAAAGTAGTGCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204079 protein sequence  
Red=Cloning site Green=Tags(s)

MSEYIRVTEDEDEPIEIPSEDDGTVLLSTVTAQFPGACGLRYRNPVSQCMRGVRLVEGILHAPDAGWGN  
 L VYVVNYPKDNKRKMDETDASSAVKVKRAVQKTS DLIVLGLPWKTEQDLKDYFSTFGEVLMVQVKKDLK  
 TGHSKGFVRFTEYETQVKVMSQRHMIDGRWCDCKLPNSKQSPDEPLRSRKVFVGRCTEDMTAEELQQF  
 FCQYGEVVDVFI PKPFRAF AFVTFADDKVAQSLCGEDLIIKGISVHISNAEPKHNSNRQLERSGRFGVHL  
 ISNVYGRSTSLKVVL

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\_001003899

**ORF Size:** 888 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\\_001003899.2](#)

**RefSeq Size:** 6486 bp

**RefSeq ORF:** 888 bp

**Locus ID:** 230908

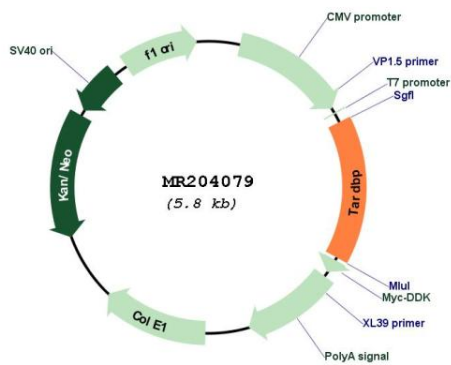
**UniProt ID:** [Q921F2](#)

**Cytogenetics:** 4 E2

**MW:** 33.3 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 MR204079