

## Product datasheet for **MG204079**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tardbp (NM_001003899) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tardbp
Synonyms:	1190002A23Rik; C85084; TDP-43; Tdp43
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG204079 representing NM_001003899 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTGAATATATTCGGGTAACAGAAGATGAGAACGATGAACCCATTGAAATACCATCAGAAGACGATG  
GGACGGTGTGCTGTCCACAGTTACAGCCAGTTCCAGGGGCATGCGGCCTGCGCTACCGGAATCCCGT  
GTCTCAGTGTATGAGAGGAGTCCGACTGGTGAAGGAATTCTGCATGCCCCAGATGCTGGCTGGGGCAAT  
CTGGTATATGTTGTCAACTATCCCAAAGATAACAAAAGGAAAATGGATGAGACAGATGCTTCCTCTGCAG  
TAAAAGTAAAAGAGCAGTCCAGAAAACATCTGACCTCATAGTGTGGGTCTCCCCTGAAAACAACCTGA  
GCAGGATCTGAAAGACTATTTTCAGTACTTTTGGAGAGGTTCTTATGGTTCAGGTCAAGAAAGATCTTAAA  
ACTGGTCACTCGAAAGGGTTTGGCTTTGTTCGATTTACAGAATATGAAACCAAGTAAAAGTAATGTCAC  
AACGACATATGATAGATGGGCGATGGTGTGACTGTAAACTTCCCAACTCTAAGCAAAGGCCAGACGAGCC  
TTTGAGAAGCAGAAAGGTGTTTGTGGACGTTGTACAGAGGACATGACTGCTGAAGAGCTTCAGCAGTTT  
TTCTGTCAGTATGGAGAAGTGGTAGATGTCTTCATTCCCAAACCTTCAGAGCTTTTGCCTTCGTCACCT  
TTGCAGATGATAAGGTTGCCAGTCTCTTTGTGGAGAGGATTTGATCATTAAAGGAATCAGCGTGCATAT  
ATCCAATGCTGAACCTAAGCATAATAGCAATAGACAGTTAGAAAGAAGTGAAGATTTGGTGTTCATCTC  
ATTTCAAATGTTTATGGAAGAAGCACTTCATTGAAAGTAGTGCTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG204079 representing NM\_001003899  
 Red=Cloning site Green=Tags(s)

MSEYIRVTEDENDPEIEIPSEDDGTVLLSTVTAQFPGACGLRYRNPVSQCMRGVRLVEGILHAPDAGWGN  
 LVYVVNYPKDNKRKMDETDASSAVKVKRAVQKTS DLIVLGLPWKTEQDLKDYFSTFGEVLMVQVKDLK  
 TGHSKGFVRFTEYETQVKVMSQRHMIDGRWDCCKLPNSKQSPDEPLRSRKVFVGRCTEDMTAEELQQF  
 FCQYGEVVDVFI PKPFRAF AFVTFADDKVAQSLCGEDLIIKGISVHISNAEPKHNSNRQLERSGRFGVHL  
 ISNVYGRSTSLKVVL

TRTRPLE - GFP Tag - V

**Restriction Sites:**

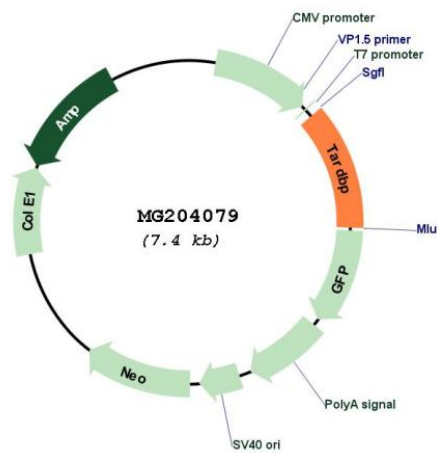
Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001003899

**ORF Size:** 885 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001003899.2</a>
<b>RefSeq Size:</b>	6489 bp
<b>RefSeq ORF:</b>	888 bp
<b>Locus ID:</b>	230908
<b>UniProt ID:</b>	<a href="#">Q921F2</a>
<b>Cytogenetics:</b>	4 E2
<b>Gene Summary:</b>	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]