

## Product datasheet for MR204930

### Tor1a (NM\_144884) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tor1a (NM_144884) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tor1a
Synonyms:	DQ2; Dyt1; torsinA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204930 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGCTTGGCCGGCCGCTCTGGCCCTGCTGCTGCTGGCGCCGTGCGTGGTTCGTGCGGTGGAGCCCA  
TCAGCCTGAGTCTGGCCCTGGCCGGCGTACTCACCACCTATATCTCTACCCTCGTCTCTACTGCCTCTT  
CGCCGAGTGTGCGGCCAGATGCGGAGCCTCAGCCGGGAGGCGCTGCAGAAAGATCTGGATAACAAGCTC  
TTTGGACAGCATTTGCAAAAAAAGTCATCCTAAACGCCGTGTCTGGTTTCTAAGCAACCCGAAGCCCA  
AGAAGCCCCTTACCCTCTCTGACGGGTGGACGGGCACCGCAAAACTTCGCCAGCAAGATCATCGC  
GGAGAATATTTACGAGGGCGGACTGAACAGTGACTATGTACACCTGTTTGTGGCCACGCTACACTCCCC  
CACGCCTTAACATCACACAGTATAAGGACCAGTTACAGATGTGGATCAGAGGCAACGTGAGCGCCTGTG  
CTCGCTCCATCTTCATCTTTGATGAGATGGACAAGATGCATGCCGGCCTCATCGACGCCATCAAGCCTTT  
CCTAGACTATTACGATGTGGTAGATGAGGTCTCCTATCAGAAAGCCATCTTCATCTTCTCAGCAATGCA  
GGGGCAGAGAGGATCACAGACGTGGCTCTGGATTTCTGAAAAAGTGGGAAGCAGAGGGAAGAAATCAAGC  
TCAGAGACATGGAGCCC GCCCTGGCCGTGTCGGTCTTCAATAACAAGAACAGTGGCTTCTGGCACAGCAG  
CCTCATTGACCGGAACCTCATAGATTATTTGTCCCCTTCTGCCCTGGAGTACAAGCACCTGAAAATG  
TGATCAGAGTGGAGATGCAGTCCCAGGCTATGAAGTAGATGAGGACATCATCAGCAAGGTAGCGGAAG  
AGATGACGTTCTTCCCCAAGGAGGAGAAGTCTTCTCTGACAAGGGCTGCAAGACTGTGTTACCAAGCT  
GGACTACTACCTGGATGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204930 protein sequence  
Red=Cloning site Green=Tags(s)

MKLGRAALALLLAPCVVRAVEPISLSLALAGVLTYYISYPRLYCLFAECCGQMRSLSREALQKDLDNKL  
 FGQHLAKKVILNAVSGFLSNPKPKKPLTSLHGWTGTGKNFASKIIAENIYEGGLNSDYVHLFVATLHFP  
 HASNITQYKDQLQMWIRGNVSACARSIFIFDEMCKMHAGLIDAIKPFLDYDVIDVDEVSQKAIIFLSNA  
 GAERITDVALDFWKSQKQREEIKLRDMEPALAVSVFNNKNSGFVHSSLIDRNLIDYFVPFLPLEYKHLKM  
 CIRVEMQSRGYEVDEDIISKVAEEMTFPPKEEKVFSKDGCKTVFTKLDYYLDD

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\_144884

**ORF Size:** 1002 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\\_144884.2](#)

**RefSeq Size:** 1452 bp

**RefSeq ORF:** 1002 bp

**Locus ID:** 30931

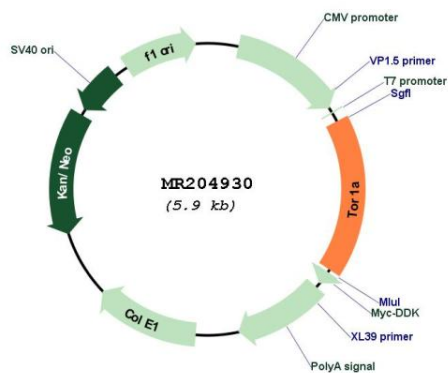
**UniProt ID:** [Q9ER39](#)

**Cytogenetics:** 2 B

**MW:** 37.8 kDa

**Gene Summary:** Protein with chaperone functions important for the control of protein folding, processing, stability and localization as well as for the reduction of misfolded protein aggregates. Involved in the regulation of synaptic vesicle recycling, controls STON2 protein stability in collaboration with the COP9 signalosome complex (CSN). In the nucleus, may link the cytoskeleton with the nuclear envelope, this mechanism seems to be crucial for the control of nuclear polarity, cell movement and, specifically in neurons, nuclear envelope integrity. Participates in the cellular trafficking and may regulate the subcellular location of multipass membrane proteins such as the dopamine transporter SLC6A3, leading to the modulation of dopamine neurotransmission. In the endoplasmic reticulum, plays a role in the quality control of protein folding by increasing clearance of misfolded proteins such as SGCE variants or holding them in an intermediate state for proper refolding. May have a redundant function with TOR1B in non-neural tissues.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR204930