

## Product datasheet for **MG222147**

### Tnik (NM\_001163009) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tnik (NM_001163009) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tnik
Synonyms:	1500031A17Rik; 4831440119Rik; AI451411; C530008O15Rik; C630040K21 Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG222147 representing NM_001163009 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGAGCGACTCCCCAGCTCGCAGCCTGGATGAAATCGATCTCTCCGCCCTGAGGGACCTGCAGGGA  
TCTTTGAGTTGGTGAACCTGTGCGAAATGGCAGCTATGGTCAAGTTTATAAGGGTCGTATGTCAAAC  
GGGCCAGCTTGTGCCATTAAGTTATGGATGTCACAGGGGATGAAGAGGAAGAAATCAAACAAGAAAT  
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CTCCTGGCATGGATGACCAACTCTGGTTGTTATGGAGTTCTGTGGTGTGGCTCTGTCCTGACTGACCTGAT  
CAAGAACACGAAAGGCAACACATTGAAAGAGGAGTGGATTGCATACATCTGCAGGGAGATCTTACGGGGC  
CTGAGTCACTGCACCAGCACAAAGTGATTCATCGAGATATCAAAGGGCAGAACGCTCTTGTGTGACTGAAA  
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ACCACATTGATCGAACAAGAAGAAGCGAGGAGAAAAAGATGAGACTGAGTATGAATACAGCGGAAGTGA  
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AGGCAGCTAAAGCAAGAGCGGGACTATCTGGTTTCCCTCCAGCATCAGCGGCAGGAGCAGAGGCCCTGG  
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CTTTGCTTTAGTGTTCATTTTAAAGAGACCACCGGTACCTGTGAAACCTTCATTTTCTTTATACTGA  
CTCAAGTCACATCTGTGTTCAATGATCAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG222147 representing NM\_001163009  
 Red=Cloning site Green=Tags(s)

MASDSPARSLDEIDL SALRDPAGIFELVELVGNNGTYGQVYKGRHVKTGQLAAIKVMDVTGDDEEEEIKQEI  
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 DSNGFAGHINLPDLVQQSHSPAGTPTEGLGRVSTHSQEMDSGAEYIGSSTKASF TPFVDPVRYQTSPTD  
 EDEEDDESSAAALFTSELLRQEQAQKFNARKISVYVNVNPTNIRPHSDTPEIRKYKRFNSEILCAALWGV  
 NLLVGTENGLMLLDRSGQKQVYVNL INRRRFQQMDVLEGLNVLVTISGKKNLKRYYL SWLRNRILHNDPE  
 VEKQKQWITVGDLEGC IHYKVVYERIKFLVIALKNAVEIYAWAPKPYHKFMAFKSFADLQHKPLLVDLT  
 VEEGQRLKVI FGSHTGFHVIDVDSGNSYDIYIPSHIQGNITPHAI VILPKTDGMEMLVCYEDEGVYVNTY  
 GRITKDVVLQWGEPTSVAYIHSNQIMGWGEKAIEIRSVETGHL DGVFMHKRAQRLKFLCERNDKVNPFG  
 LCF SVCILRDHQVPVKPFSFILTQVTSVFNDQ

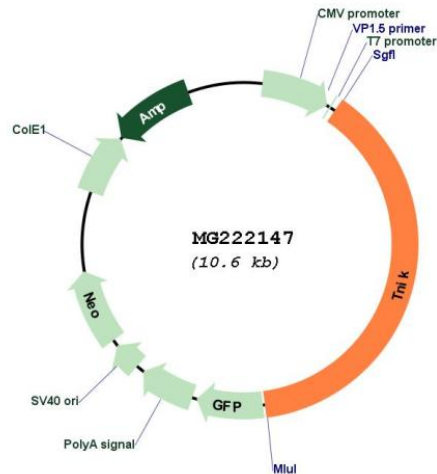
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_001163009

**ORF Size:** 4089 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\\_001163009.1](#), [NP\\_001156481.1](#)

**RefSeq Size:** 4625 bp

**RefSeq ORF:** 4092 bp

**Locus ID:** 665113

**Cytogenetics:** 3 A3

**Gene Summary:**

Serine/threonine kinase that acts as an essential activator of the Wnt signaling pathway. Recruited to promoters of Wnt target genes and required to activate their expression. May act by phosphorylating TCF4/TCF7L2. Appears to act upstream of the JUN N-terminal pathway. May play a role in the response to environmental stress. Part of a signaling complex composed of NEDD4, RAP2A and TNIK which regulates neuronal dendrite extension and arborization during development. More generally, it may play a role in cytoskeletal rearrangements and regulate cell spreading (By similarity).[UniProtKB/Swiss-Prot Function]