

## Product datasheet for RN201546

### Tnk2 (NM\_001008336) Rat Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tnk2 (NM_001008336) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Tnk2
Synonyms:	MGC94214
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>RN201546 representing NM_001008336 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCAGCCGGAGGAGGGAACAGGCTGGCTGCTGGAGCTGCTGTCTGAGGTGCAGCTACAACAGTATTTCC  
TGAGGCTCCGAGATGACCTCAACATTACCCGCCTGTCTCATTTTGAGTATGTCAAAAACGAAGACCTGGA  
AAAGATTGGCATGGCCCGCCTGGCCAGAGGCGCTATGGAGGCTGTGAAGAGGAGGAAGGCCATGTGC  
AAACGCAAGTCATGGATGAGCAAGGTGTTCAAGTGGAAAGCGGCAGGAGGCTGAGTTCCTTCCCATCACT  
CTCAGAGCACCTTCCGGAAGCCCTCCCCACCCAGGGGGCTGGCAGGGGAGGGGACCCCTGCAGAGCCT  
CACCTGCCTCATTGGGGAGAAAGACCTGCGCCTGCTGGAGAAGCTGGGAGATGGCTCCTTTGGCGTGGTG  
CGCAGGGGTGAATGGGATGCCCTGCAGGGAAGACGGTGAAGTGTGGCCGTGAAGTGCCTGAAACCTGATG  
TGCTGAGCCAGCCGAGGCCATGGACGACTTCAATCCGGGAGGTCAATGCCATGCATTGCTAGACCACCG  
AAACCTCATTGCTTGTACGGTGTGGTGTCTCACACCACCCATGAAGATGGTGACAGAGCTGGCCCTCTG  
GGATCCTTGTGGACCGCTACGTAACACCAAGGTCAATTCCTCTTGGGACGCTGAGTCGCTATGCCG  
TGCAGGTGGCTGAGGGCATGGGCTACCTGGAGTCCAAGCGCTTCATTACCGAGACCTGGCTGCTCGAAA  
TCTGCTTTTGGCCACCCGTGACCTGGTCAAGATTGGGGACTTTGGACTGATGCGAGCTCTGCCCCAGAAT  
GATGGCCACTATGTCATGCAAGAACATCGCAAGGTGCCCTTTGCCTGGTGTGCCCTGAGAGCCTGAAGA  
CACGGACTTTCTCCATGCCAGTGACACCTGGATGTTTGGGGTCACTGTGGGAGATGTTTACGTATGG  
CCAGGAGCCCTGGATTGGCCTCAATGGCAGCCAGATCCTGCATAAGATTGACAAGGAAGGGGAGCGCCTG  
CCCCGGCCTGAGGACTGCCCCAAGACATCTACAATGTCATGGTCCAGTGTGGGCCACAAAGCCAGAGG  
ACAGACCACATTTGTGGCCCTTCGGGACTTCTGCTGGAGGCTCAGCCTACAGACATGCGGGCCCTTCA  
GGACTTCGAGGAGCCGACAAGCTGCACATCCAGATGAACGACGTCATTACTGTCATTGAGGAAGGGCT  
GAGAATACTGGTGGCGTGGTCAAGACACAGGACGCTGTGTGGGACCCTTCCCTCGAAATGTGGTGA  
CCTCTGTGGCTGGCCTGTGAGCCAGGACATCAGCCAGCCTCTACAGAATAGCTTCAATCACAGGGCA  
TGGCGACAGTGACCCCGCCACTGCTGGGGTTCCCTGACAGGATCGATGAACTGTACCTGGGAAACCC  
ATGGACCCCTGACCTGCTGAGTGTGGAAGTGAACCTCGCGACCCACCCAGCATTTAGGACGGATGA



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AAAAGCCAACATATGACCCTGTGAGTGAGGACCCAGACCCCTGTCCAGCGACTTCAAGAGACTTGGCCT  
 GAGGAAGCCAGCCCTGCCCGAGGGCTCTGGCTGGCAAAGCCCTCAGCCCGGGTCCAGGCACCAAGGCA  
 GGCCGCAGCAGTGGGGTGAGGTCACTCATCGACTTCGGCGAGGAGCCTGTAGCCCCAACCCACGGC  
 CCTGTGCACCTTCTTGGCACAGTTGGCCATGGATGCCTGCTCCCTGCTGGACAAGACACCACCACAGAG  
 CCCCACACGGGCACTGCCACGACCTTTACATCCTACACCTGTGGTGGACTGGGACGCTCGCCCGTGCC  
 CCGCCCCCTGCCTACGATGATGTGGCCCAAGATGAGGATGACTTCGAGGTGTCTCTATCAACAGCACCC  
 TAGTGAGTGCAGGCCTCCCTACCGGGCTAGCCAAGGCGAGACCAATTATGCGTTTGTACCTGAGCAGGC  
 CCAGTGTCCCTGCCCTGGAGGATAACCTGTTCTGCCACCGCAGGGTGGAGGCCAGCCACCAGCTCA  
 GCCCAGACTGCAGAGATTTCCAGGCACTGCAGCAGGAGTGTATGCGGCAGCTACAGTCCCCACTGGCC  
 AGCTGACCCCGTCCCCTACCCAGGAGGTGATGACAAGCCCGAGGTGCCACCCCGGGTACCTATTCCCC  
 TCGGCCACACGTCCACGTGTGGGACTATCTCCAGCTCCCTTAGGTGAGGAAGAGGCAAGTCGGTGGCCT  
 GGACCCTCTCCCCTCCCGAGTGCCTCCCGGGAACCCCTGTCTCTCAAGGTCGAGGACCCCAAGCC  
 CCCTAGTACCACCTGGCAGCTCCCACTACCGCATCGGCTCTCGAGCTCACCTGGAAGACCATGCCAC  
 CACCCAGAGCTTTGCCTCAGACCCTAAGTACGCCACTCCACAAGTATCCAGGCTCTGGCCACGGGT  
 GGCCCTGCATCTGCCATTGTCCGTGATGGCAGGAAGGTCAGCAGCACCCACTATTACCTGCTGCCAG  
 AGCGCCCTCCCTACCTCGAGCGCTACCAGCGCTTCTGAGGGAGGCCAGAGCCCGAGGAGCCGGCCGC  
 CCTGCCGGTCCCCCACTGCTGCCCCCGCTAGCACTCCAGCCCTGCCGCCCACTGCCACCGTCCGA  
 CCTATGCCTCAGGCTGCCCCAGACCCAAAGGCCAATTCTCCACCAATAACAGCAACCCAGGGGCGCAGC  
 CACCATCCCTGAGGGCCAGTGCACGGCTGCCGCAGAGGGGCTGCCAGGGGATGGCAAGAGGCTGCCCG  
 GCCAGCAGACAAAGTCCAGATGCTGCAGGCCATGGTGCATGGGGTGACCACAGAGGAGTCCAGGCGGCC  
 CTGAGGAGCCACAGCTGGAGTATTCAGAGGGCTGCCAGTATCTGAAGGTGGAGCAGCTCTTTGGGCTGG  
 GTCTTCGGCCACGGTGGAGTGCCACAAGTGTAGAGATGTTTCGACTGGAACCTAGAGCAAGCCGGCTG  
 TCACCTTCTGGGTCCTGTGGCCCTGCCACCACAACGCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

Sgfl-Mlul

**ACCN:**

NM\_001008336

**Insert Size:**

3123 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\_001008336.1, NP\_001008337.1
**RefSeq Size:**

4250 bp

**RefSeq ORF:**

3123 bp

Locus ID: 303882

UniProt ID: [Q5U2X5](#)

Cytogenetics: 11q22

**Gene Summary:** Non-receptor tyrosine-protein and serine/threonine-protein kinase that is implicated in cell spreading and migration, cell survival, cell growth and proliferation. Transduces extracellular signals to cytosolic and nuclear effectors. Phosphorylates AKT1, AR, MCF2, WASL and WWOX. Implicated in trafficking and clathrin-mediated endocytosis through binding to epidermal growth factor receptor (EGFR) and clathrin. Binds to both poly- and mono-ubiquitin and regulates ligand-induced degradation of EGFR, thereby contributing to the accumulation of EGFR at the limiting membrane of early endosomes. Downstream effector of CDC42 which mediates CDC42-dependent cell migration via phosphorylation of BCAR1. May be involved both in adult synaptic function and plasticity and in brain development. Activates AKT1 by phosphorylating it on 'Tyr-176'. Phosphorylates AR on 'Tyr-267' and 'Tyr-363', thereby promoting its recruitment to androgen-responsive enhancers (AREs). Phosphorylates WWOX on 'Tyr-287'. Phosphorylates MCF2, thereby enhancing its activity as a guanine nucleotide exchange factor (GEF) toward Rho family proteins. Contributes to the control of AXL receptor levels. Confers metastatic properties on cancer cells and promotes tumor growth by negatively regulating tumor suppressor such as WWOX and positively regulating pro-survival factors such as AKT1 and AR (By similarity).[UniProtKB/Swiss-Prot Function]