

## Product datasheet for MC223166

### Tnk2 (NM\_001110147) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Tnk2 (NM\_001110147) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Tnk2  
**Synonyms:** Ack; Ack-1; Ack1; Cdgip; Pyk1  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC223166 representing NM\_001110147  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGC**C

ATGCAGCCGGAGGAGGGAACGGGCTGGCTGTTGGAGCTGCTGTCCGAGGTGCAGCTACAACAGTATTTCC  
 TGAGGCTTCGAGATGACCTCAACATTACCCGCCTATCTCATTTTGAATATGTCAAAAATGAAGACCTGGA  
 AAAGATTGGCATGGGCGGCCTGGCCAGAGGCGGCTGTGGAGGCCGTGAAGAGGAGGAAGGCCATGTGC  
 AAACGCAAGTCATGGATGAGCAAGGTGTTCAAGTGGAAAGCGGTTGGAGGCCGAGTTCCCTTCCCAGCACT  
 CTCAGAGCACCTTCCGGAAGCCCTCCCCACCCAGGGAGCCTGCCAGGGGAGGGGACCCCTGCAGAGCCT  
 CACCTGCCTCATTGGGGAGAAAGACCTACGCCTGCTGGAGAAGCTGGGGGATGGCTCCTTTGGCGTGGTG  
 CGCAGGGGTGAATGGGACGCCCCCGCAGGGAAGACGGTGAGTGTGGCCGTCAAGTGCCTGAAGCCTGACG  
 TGCTGAGCCAGCCAGAGGCCATGGACGACTTCAATCCGGGAGGTCAATGCCATGCATTACTAGACCACCG  
 AAACCTCATTTCGCTTGTATGGTGTGGTGTCTCACACTACCCATGAAGATGGTGACAGAGCTGGCACCTCTG  
 GGATCTTTGTTGGACCGCCTACGTAACACCAAGGTCAATTCCTCTTGGGGACGCTGAGTCGCTACGCTG  
 TGCAGGTGGCTGAGGGTATGGCCTACCTGGAGTCCAAGCGCTTCAATCACGGGATCTGGCTGCTCGAA  
 CCTGCTTTTGGCTACCCGGACCTGGTCAAGATTGGGGACTTCGACTGATGCGAGCTTCCGCCCCAGAAT  
 GATGACCACTATGTCATGCAAGAACACCGCAAGGTGCCCTTTCCTGGTGTGCCCTGAGAGCCTGAAGA  
 CACGGACTTTCTCCCATGCCAGTGACACCTGGATGTTTGGGGTACACTGTGGGAGATGTTACATATGG  
 CCAGGAGCCCTGGATTGGCCTCAATGGCAGCCAGATCCTGCATAAGATCGACAAGGAAGGGGAGCGCCTG  
 CCCCAGGCGGAGGACTGCCCTCAAGACATCTACAATGTCATGGTCCAGTGTGGGCCACAAGCCAGAGG  
 ACAGACCCACATTTGTGGCTCTTCGGGACTTCTGCTGGAGGCTCAGCCCACTGACATGCGGGCTCTTCA  
 GGACTTTGAGGAGCCAGATAAACTGCACATCCAGATGAATGACGTCATCACTGTCATCGAGGGAAGGGCT  
 GAGAATACTGGTGGCGTGGCAGAATACGCGGACCCTGTGTGTAGGACCCTTCCCTCGAAATGTCGTGA  
 CCTCCGTGGCTGGCCTGTGAGCCAGGACATCAGCCAGCCTCTACAGAATAGCTTCAATCACACAGGACA  
 TGGTGACAGTGACCCCGCCACTGCTGGGGTTCCCTGACAGGATCGATGAACTGTACCTGGGAAACCCC  
 ATGGACCCTCCTGACCTGCTGAGTGTGGAAGTACGACCTCCCGACCCAGCACCTAGGACGGGTGA



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AAAAGCCAACATACGACCCTGTGAGTGAGGACCCAGACCCCTGTCCAGCGACTTCAAGAGGCTTGGCCT
GAGGAAGCCAGCCCTGCCTCGAGGGCTGTGGCTGGCAAAGCCCTCAGCCCAGTGCCAGGCACCAAGGCA
GACCGCAGCAGTGGGGGTGAGGTCACTCATCGACTTCGGTGAGGAGCCTGTGGTCCCAACCCCTCGGC
CCTGTGCACCCCTCTTGGCACAGTTGGCCATGGATGCCTGCTCCTTGTGGACAAGACACCACCAGAG
CCCCACACGGGCACTGCCACGACCTTACACCCACCCCTGTGGTAGACTGGGACGCGCTCCGTGCC
CCGCCCCCTGCCTATGACGACGTGGCCAGGATGAGGATGACTTTGAGGTCTGCTCCATCAACAGCACGC
TAGTAGGTGCAGGCCTCCCTGCTGGCCCTAGCCAAGGGAGACCAATTACGCCTTGTACCTGAGCAGGC
GCAGATGCCCCCTGCCCTGGAGGATAACCTGTTCTTCCACCCAGGGCGGAGGCAAGCCGCCAGCTCA
GTGCAGACTGCAGAGATTTTCCAGGCACTGCAGCAGGAGTGATGCGGCAGCTACAGTCCCCACTGGCC
AGCTGACCCCTCCCGACCCAGGAGGTGATGACAAGCCCCAGGTGCCACCCGGGTACCTATTCCCCC
TCGGCCACGCGTCCACGTGTGGAGCTATCTCCAGCTCCCTCGGGTGAGGAAGAGACAAGCCGGTGGCCT
GGACCTGCCTCGCCCCCGAGTGCCTCCCGGAAACCTCTGTCTCCTCAAGGTTCAAGGACCCCAAGCC
CCCTAGTGCCACCTGGCAGCTCTCCACTACCGCATCGGCTCTCTAGCTCACCTGGAAAGACCATGCCAC
CACTCAAAGCTTTGCCTCAGACCCTAAGTATGCCACTCCACAAGTATCCAGGCTCCTGGCCACGGGCA
GGCCCCGCATCTGCCATTGTCCGCGATGGCAGGAAGGTGAGCAGCACTCATTACTACCTGCTGCCTG
AGCGCCCTCCTTACCTGGAACGCTATCAGCGCTTCTGCGGGAGGCCAGAGCCCGGAAGAGCCGCCGC
CCTGCCTGTGCCCCCGCTGTTGCCCCGCCAGTACTCCAGCCCTGCTGCCCCACTGCCACCGTCAGA
CCTATGCCTCAGGCCGCCAGACCCAAAGGCCAACTTCTCCACCAATAACAGCAACCCAGGGGCACGGC
CACCATCCCTGAGGGCCACGGCTCGGCTGCCACAGAGGGGCTGCCAGGGGACGGGAAGAGGCTGCTCG
GCCAGCAGACAAGGTCCAGATGGTGGAGCAGCTCTTGGGCTGGGTCTTCGGCCACGGGTGGAGTGCCAC
AAGTCTAGAGATGTTGACTGGAACCTAGAGCAAGCCGGCTGTACCTTCTGGGCTCCTGTGGCCCTG
CTCATCACAACGCTGA
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AGCGGACCGACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-RsrII

**ACCN:** NM\_001110147

**Insert Size:** 3027 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\\_001110147.1](#), [NP\\_001103617.1](#)

**RefSeq Size:** 4313 bp

**RefSeq ORF:** 3027 bp

Locus ID: 51789  
UniProt ID: [O54967](#)  
Cytogenetics: 16 B3

**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.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks two in-frame exons in the central coding region, compared to variant 1. The encoded isoform (2) is shorter, compared to isoform 1.