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Product datasheet for MG211437

Tnk2 (BC052421) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tnk2 (BC052421) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tnk2
Synonyms:	Ack, Cdgip, ACK1, MGC37479
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG211437 representing BC052421
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGCCGGAGGAGGGAACGGGCTGGCTGTTGGAGCTGCTGTCCGAGGTGCAGCTACAACAGTATTTCC
TGAGGCTTCGAGATGACCTCAACATTACCCGCCTATCTCATTTTGAATATGTCAAAAATGAAGACCTGGA
AAAGATTGGCATGGGCCGGCCTGGCCAGAGGCGGCTGTGGGAGGCCGTGAAGAGGAGGAAGGCCATGTGC
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CTCAGAGCACCTTCCGGAAGCCCTCCCCCACCCCAGGGAGCCTGCCAGGGGAGGGGACCCTGCAGAGCCT
CACCTGCCTCATTGGGGAGAAAGACCTACGCCTGCTGGAGAAGCTGGGGGATGGCTCCTTTGGCGTGGTG
CGCAGGGGTGAATGGGACGCCCCCGCAGGGAAGACGGTGAGTGTGGCCGTCAAGTGCCTGAAGCCTGACG
TGCTGAGCCAGCCAGAGGCCATGGACGACTTCATCCGGGAGGTCAATGCCATGCATTCACTAGACCACCG
AAACCTCATTCGCTTGTATGGTGTGGTGCTCACACTACCCATGAAGATGGTGACAGAGCTGGCACCTCTG
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TGCAGGTGGCTGAGGGTATGGCCTACCTGGAGTCCAAGCGCTTCATTCACCGGGATCTGGCTGCTCGAAA
CCTGCTTTTGGCTACCCGGGACCTGGTCAAGATTGGGGACTTCGGACTGATGCGAGCTCTGCCCCAGAAT
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TGGTGACAGTGACCCCCGCCACTGCTGGGGGTTCCCTGACAGGATCGATGAACTGTACCTGGGAAACCCC

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ATGGACCCTCCTGACCTGCTGAGTGTGGAACTGAGCACCTCCCGACCCACCCAGCACCTAGGACGGGTGA
AAAAGCCAACATACGACCCTGTGAGTGAGGACCCAGACCCCCTGTCCAGCGACTTCAAGAGGCTTGGCCT
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GCCAGCAGACAAGGTCCAGATGGTGGAGCAGCTCTTTGGGCTGGGTCTTCGGCCACGGGTGGAGTGCCAC
AAGGTCCTAGAGATGTTCGACTGGAACCTAGAGCAAGCCGGCTGTCACCTTCTGGGCTCCTGTGGCCCTG
CTCATCACAAACGC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG211437 representing BC052421
Red=Cloning site Green=Tags(s)

MQPEEGTGWLLELLSEVQLQQYFLRLRDDLNITRLSHFEYVKNEDLEKIGMGRPGQRRLWEAVKRRKAMC
KRKSWMSKVFSGKRLEAEFPSQHSQSTFRKPSPTPGSLPGEGTLQSLTCLIGEKDLRLLEKLGDGSFGVV
RRGEWDAPAGKTVSVAVKCLKPDVLSQPEAMDDFIREVNAMHSLDHRNLIRLYGVVLTLPMKMVTELAPL
GSLLDRLRKHQGHFLLGTLSRYAVQVAEGMAYLESKRFIHRDLAARNLLLATRDLVKIGDFGLMRALPQN
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MDPPDLLSVELSTSRPTQHLGRVKKPTYDPVSEDPDPLSSDFKRLGLRKPALPRGLWLAKPSARVPGTKA
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VQTAEIFQALQQECMRQLQVPTGQLTPSPTPGGDDKPQVPPRVPIPPRPTRPRVELSPAPSGEEETSRWP
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GPCILPIVRDGRKVSSTHYYLLPERPPYLERYQRFLREAQSPEEPAALPVPPLLPPPSTPAPAAPTATVR
PMPQAAPDPKANFSTNNSNPGARPPSLRATARLPQRGCPGDGQEAARPADKVQMVEQLFGLGLRPRVECH
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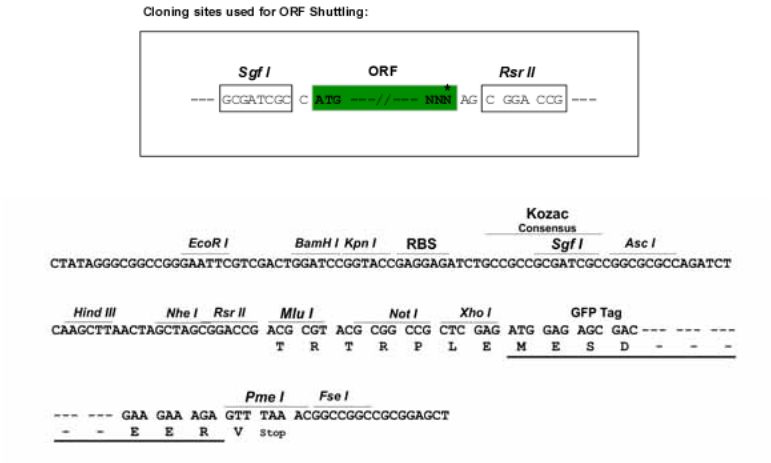
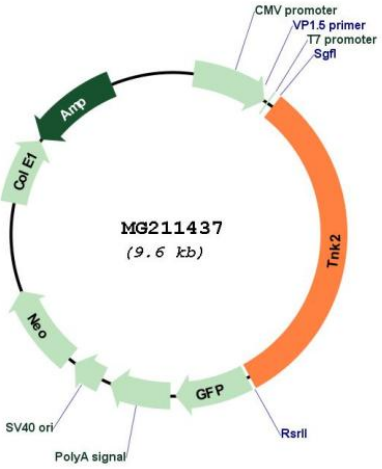
SGPTRTRRLE - GFP Tag - V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: BC052421

ORF Size: 3024 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:	BC052421, AAH52421
RefSeq Size:	4334 bp
RefSeq ORF:	3026 bp
Locus ID:	51789
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]