OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MG227113

Ttbk1 (NM_001162864) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ttbk1 (NM_001162864) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ttbk1
Synonyms:	AU017937; AW048023; C330008L01Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG227113 representing NM_001162864, codon optimized.
Due to the complexity of NM_001162864, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAATGCCTTGCAGCTGCTCTGAAGGACGAGACTAACATGTCAGGCGGTGGGGAGCAAGCGGACATTC
TGCCTGCGAACTATGTGGTTAAAGACCGGTGGAAGGTGCTGAAAAAGATCGGAGGAGGCGGATTCGGGGA
GATCTACGAGGCAATGGATCTGTTGACACGAGAGAATGTAGCCCTTAAGGTGGAGAGTGCCCAGCAGCCG
AAGCAGGTCCTGAAGATGGAGGTGGCCGTCCTTAAGAAGCTGCAGGGCAAAGACCACGTTTGTCGATTCA
TCGGCTGCGGGAGAAATGAAAAATTTAATTACGTGGTCATGCAGCTCCAGGGACGGAACCTCGCCGATCT
TCGAAGATCTCAGCCACGGGGCACATTTACGCTGTCCACAACTTTGCGGCTGGGCAAGCAGATCCTTGAG
TCTATTGAGGCCATTCACAGCGTGGGATTCCTTCACAGAGATATCAAGCCGTCTAACTTTGCAATGGGGC
GCCTCCCTTCTACATACCGGAAATGTTACATGCTTGATTTTGGCCTTGCCAGGCAGTACACCAATACCAC
CGGGGACGTGCGGCCACCCAGGAACGTGGCAGGATTCCGCGGGACAGTGCGGTATGCCTCTGTTAATGCC
CACAAAAATCGGGAGATGGGGCGCCATGATGACCTGTGGAGCCTGTTCTATATGTTGGTGGAATTCGCGG
TGGGACAGCTGCCATGGCGCAAGATCAAGGACAAGGAGCAGGTGGGCATGATCAAAGAGAAGTATGAGCA
TAGGATGTTGCTCAAACACATGCCCAGCGAGTTCCATCTGTTCCTTGACCACATCGCAAGCCTCGACTAC
TTTACAAAGCCTGATTACCAGTTGATTATGTCAGTTTTCGAGAACAGCATGAAGGAACGAGGAATCGCAG
AGAATGAGGCTTTCGACTGGGAGAAGGCCGGCACAGACGCTCTCCTGTCAACAAGCACCTCTACCCCCCC
TCAGCAGAACACTAGGCAGACTGCTGCCATGTTTGGAGTGGTCAATGTTACACCCGTCCCAGGTGACCTT
CTCAGGGAGAACACTGAAGATGTCCTTCAGGGGGAGCATTTGTCTGATCAGGAAAACGCTCCTCCGATTC

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TCCCCGGAAGACCGCCCGAAGGCCTGGGCCCTGGACCCCATCTTGTGCCTCATCCAGGAGGTCCTGAGGC
CGAGGTGTGGGAGGAAACCGATGTGAATCGGAACAAGCTTCGAATCAACATCGGAAAAACTCCATGTGTC
GAGGAGGAGCAGAGCAGAGGAGTTGGGGTACCCTCCAGTCCAGTGCGAGCACCTCCGGACAGCCCTACAA
CGCCTGTGAGGTCCCTTTGCTATAGGAGAGTGAACAGCCCAGAAAGCGAGCGGCTTTCCACCGCTGCAGA
CGGTCGGGTTGAGCTTCAGGAACGGCGATCCAGGATGGACCTGCCTGGTTCACCATCTAGGCAAGCATGT
TCCTCACAGCCAGCTCAGATGCTTTCCGTGGACACCGGACATGCTGATAGACAAGCCAGCGGCCGGATGG
ATGTAAGTGCCAGTGTCGAGCAAGAAGCTCTGTCCAACGCATTCAGGTCTGTGCCTCTGGCAGAGGAGGA
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GGATCCTAGGCAAATGCTCCCCCAGCCCGCTCCACCACAGCTGTCCCAGGCTGACGGCCGCAGCGAGACA
TCTCAACCCCCCACTCCCGGTTCCCCCAGCCACTCCCCCCTGCACTCAGGACCTAGGCCCCGCCGGCGAG
AATCAGATCCGACAGGACCCCAGAGGCAGGTGTTTAGTGTGGCCCCGCCTTTCGAGGTGAATGGACTGCC
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GCTGTGACCTCCCCTTTTACTAAGGTTGAGCGCACCTTCGTGCACATCGCTGAGAAGTCACACCTCAATG
TGATGAGTTCCGGCGGGCAGGCCTCTCGGCCAGAGGAGCTTTCCACCGGGGGCGAGCTCGGACTTGAGGT
GCTTTCTGAAGGGGGGATCGCAGAGGAGGGTGCTCCTGCTCCACTTGAGAATGGAATGGCTCTGGCTGGG
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GAGGAGCCAGAGCCTTAGCAGGAAAGAGTCTAGTAGCCCCTCCCACCAGGCCCGGCCTGGGGTGCCCCCA
TCTCGCGGCGTCCTCCAGGTGCGGTCCCAACCAGAGGCAAGTCCTGTGGCCCCTAAGAAGGGGCCTAAGG
GAAAGCAGCTGCAGACTCAGCGGGCCGCCACAAAGGGCCGGGCCGTAGTATCTGAGGGCAGGCCTGGGGC
AAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

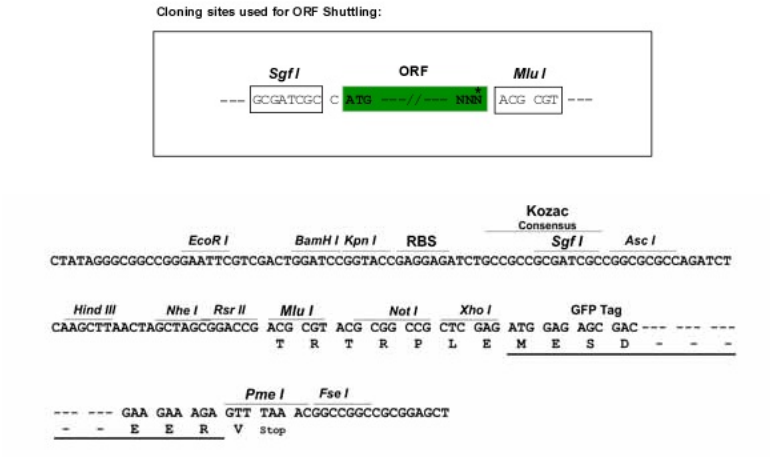
>MG227113 representing NM_001162864
Red=Cloning site Green=Tags(s)

MQCLAAALKDETNMSGGGEQADILPANYVVKDRWKVLKKIGGGGFGEIYEAMDLLTRENVALKVESAQQP
KQVLKMEVAVLKKLQGKDHVCRFIGCGRNEKFNYVVMQLQGRNLADLRRSQPRGTFTLSTTLRLGKQILE
SIEAIHSVGFLHRDIKPSNFAMGRLPSTYRKCYMLDFGLARQYTNTTGDVRPPRNVAGFRGTVRYASVNA
HKNREMGRHDDLWSLFYMLVEFAVGQLPWRKIKDKEQVGMIKEKYEHRMLLKHMPSEFHLFLDHIASLDY
FTKPDYQLIMSVFENSMKERGIAENEAFDWEKAGTDALLSTSTSTPPQQNTRQTAAMFGVVNVTPVPGDL
LRENTEDVLQGEHLSDQENAPPILPGRPPEGLGPGPHLVPHPGGPEAEVWEETDVNRNKLRINIGKTPCV
EEEQSRGVGVPSSPVRAPPDSPTTPVRSLCYRRVNSPESERLSTAADGRVELQERRSRMDLPGSPSRQAC
SSQPAQMLSVDTGHADRQASGRMDVSASVEQEALSNAFRSVPLAEEEDFDSKEWVIIDKETELKDFPPGA
EPSTSGTTDEEPEELRPLPEEGEERRRLGTEPTVRPRGRGMHTLTEEDPRQMLPQPAPPQLSQADGRSET
SQPPTPGSPSHSPLHSGPRPRRRESDPTGPQRQVFSVAPPFEVNGLPRAVPLALPYQDFKRDLSDYRERA
RLLNRVRRVGFSHMLLTAPQVPLAPFQPQANGKEGEEEEEEEEEEEEEEEEEEEEEEEEEEEEEAG
ALGEVLGPRSGSSSEGSERSTERSQEGAPSTLLADDQKEARGRASMADGDLEPEEGSKTLVLVSPGDMKK
SPVTAELAPDPDLGTLAALTPQHERPQPTGSQLDVSEPGTLSSILKSEPKPSGPGAGGGVGLVAPGAGVT
AVTSPFTKVERTFVHIAEKSHLNVMSSGGQASRPEELSTGGELGLEVLSEGGIAEEGAPAPLENGMALAG
LDGTEMESCALSGPPGETPSEVVTDSLPNGPALADGPAPASQQEPVTKKGTTISPSRHAMPGSRPRSRIP
VLLSEEDTGSEPSGSLSAKERWSKRARPQQDLARLVMEKRQGRLLLRLASGASSSSSEEQRRASETLSGT
GSEEDTPASEPTTALPRKAVRAATTRSRIPRPISVSMPVEGQQLPGRPHGAASATDLAITSRLQLQKPSG
LAPAADLRPKQSASRGPGPGRAQVSKPAAPRSPGLPASTARHPSGSPRSQSLSRKESSSPSHQARPGVPP
SRGVLQVRSQPEASPVAPKKGPKGKQLQTQRAATKGRAVVSEGRPGAR

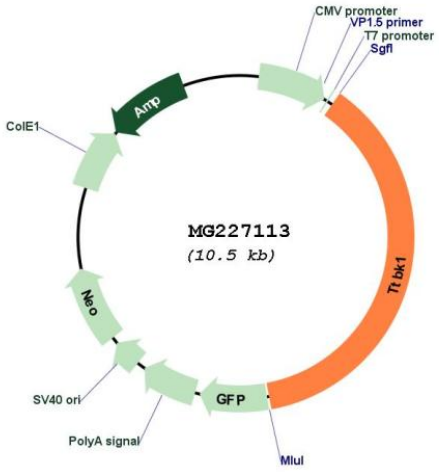
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001162864
ORF Size:	3924 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_001162864.1, NP_001156336.1
RefSeq Size:	6959 bp
RefSeq ORF:	3927 bp
Locus ID:	106763
UniProt ID:	Q6PCN3
Cytogenetics:	17 C

Gene Summary: Serine/threonine kinase which is able to phosphorylate TAU on serine, threonine and tyrosine residues. Induces aggregation of TAU (By similarity).[UniProtKB/Swiss-Prot Function]