

## Product datasheet for MR227113

### Ttbk1 (NM\_001162864) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ttbk1 (NM_001162864) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ttbk1
Synonyms:	AU017937; AW048023; C330008L01Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR227113 representing NM_001162864, <b>codon optimized</b> . <b>Due to the complexity of NM_001162864, the ORF clone is codon optimized for mammalian Expression.</b> <b>The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.</b>

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

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCAATGCCTTGACGCTGCTCTGAAGGACGAGACTAACATGTCAGGCGGTGGGAGCAAGCGGACATTC  
TGCTGCGAACTATGTGGTTAAAGACCGGTGGAAGGTGCTGAAAAAGATCGGAGGAGCGGATTCGGGA  
GATCTACGAGGCAATGGATCTGTTGACACGAGAGAATGTAGCCCTTAAGGTGGAGAGTGCACGAGCCG  
AAGCAGGTCTGAAGATGGAGGTGGCCGTCCTTAAGAAGCTGCAGGGCAAAGACCACGTTTGTGCGATTCA  
TCGGCTGCGGGAGAAATGAAAAATTTAATTACGTGGTCATGCAGCTCCAGGGACGGAACTCGCCGATCT  
TCGAAGATCTCAGCCACGGGACATTTACGCTGTCCACAACCTTGCGGCTGGCAAGCAGATCCTTGAG  
TCTATTGAGGCCATTCACAGCGTGGGATTCCTTACAGAGATATCAAGCCGTCTAACTTTGCAATGGGC  
GCCTCCCTTCTACATACCGGAAATGTTACATGCTTGATTTTGGCCTTGCCAGGCAGTACCAATACCC  
CGGGGACGTGCGGCCACCCAGGAACGTGGCAGGATTCGCGGGACAGTGGGTATGCCTCTGTTAAATGCC  
CACAAAAATCGGGAGATGGGCGCCATGATGACCTGTGGAGCCTGTTCTATATGTTGGTGAATTCGCGG  
TGGGACAGCTGCCATGGCGCAAGATCAAGGACAAGGAGCAGGTGGGCATGATCAAAGAGAAGTATGAGCA  
TAGGATGTTGCTCAAACACATGCCAGCGAGTTCATCTGTTCCCTTGACCACATCGCAAGCCTCGACTAC  
TTTACAAAGCCTGATTACCAGTTGATTATGTCAGTTTTTCGAGAACAGCATGAAGGAACGAGGAATCGCAG  
AGAATGAGGCTTTCGACTGGGAGAAGGCCGGCACAGACGCTCTCTGTCAACAAGCACCTTACCCCCC  
TCAGCAGAACTAGGCAGACTGCTGCCATGTTTGGAGTGGTCAATGTTACCCCGTCCCAGGTGACCTT  
CTCAGGGAGAACACTGAAGATGTCCTTCAGGGGAGCATTGTCTGATCAGGAAAACGCTCTCCGATTC



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TCCCCGGAAGACCGCCCCGAAGGCCTGGGCCCTGGACCCCATCTTGTGCCTCATCCAGGAGGTCTGAGGC  
CGAGGTGTGGGAGGAAACCGATGTGAATCGGAACAAGCTTCAATCAACATCGGAAAACTCCATGTGTC  
GAGGAGGAGCAGAGCAGAGGAGTTGGGGTACCCTCCAGTCCAGTGCAGACCTCCGGACAGCCCTACAA  
CGCCTGTGAGGTCCCTTTGCTATAGGAGAGTGAACAGCCCAGAAAGCGAGCGGCTTTCCACCGCTGCAGA  
CGGTCCGGTTGAGCTTCAGGAACGGCGATCCAGGATGGACCTGCCTGGTTCACCATCTAGGCAAGCATGT  
TCCTCACAGCCAGCTCAGATGCTTCCGTGGACACCGGACATGCTGATAGACAAGCCAGCGGCGGATGG  
ATGTAAGTGCAGTGTGAGCAAGAAGCTCTGTCCAACGCATTCAGGTCTGTGCCTCTGGCAGAGGAGGA  
GGACTTCGATTCTAAAGAGTGGGTATAATCGACAAGGAAACCGAATTGAAGGATTTCCSCCGCGCT  
GAACCGAGCACTTCCGGCACCACCGACGAGGAACCGGAAGAGCTGCGCCCTTGCCCGAGGAGGGCGAGG  
AAAGGCGCGACTGGGAACAGAACCTACAGTTCGCCCTCGCGCCCGGGATGCACACGCTTACTGAGGA  
GGATCCTAGGCAAATGCTCCCCAGCCCGCTCCACCACAGCTGTCCAGGCTGACGGCCGACGAGACA  
TCTCAACCCCACTCCCGTTCCCGCAGCACTCCSCCTGCACTCAGGACCTAGGCCCGCGGCGAG  
AATCAGATCCGACAGGACCCAGAGGCAGGTGTTAGTGTGGCCCGCTTTCGAGGTGAATGGACTGCC  
TAGGGCCGTGCCTCTCGCTTTCCATACCAGGACTTTAAGAGGGACCTGTCTGACTACAGGGAACGAGCA  
CGCCTGTGAATCGCGTACGGCGAGTGGGCTTCAGTACATGCTGCTGACCGCCCTCAAGTCCCTCTCG  
CGCCATTCGAACACAGCGAATGGTAAAGAGGGCGAGGAGGAGGAGGAAGAAGAGGAGGAAGAGGAGGA  
GGAAGAGGAGGAAGAGGAGGAGGAGGAAGAGGAGGAGGAGGAGGAAGAAGAGGAGGAAGAGGAGGAGGA  
GCATTGGGTGAGGTTCTTGGGCCAGAAGCGGTTCTTCCAGCGAGGGCTCCGAGAGGTCAACCGAGCGCA  
GCCAGGAAGGAGCACCTAGTACTCTGTTGCCGACGATCAGAAGGAGGCAAGGGGGCGCGCTCTATGGC  
CGACGGGATCTGGAACAGAGGAGGGTAGCAAAACGCTTGTGCTTGTGACGCCCCGGGATATGAAGAAG  
AGTCCAGTACCCTGAGCTGGCACCCGATCCAGACTTGGGCACCTTGGCTGCTTACCCCGCAGCAGC  
AGAGCCCCAGCCACCGGTTCCCAATTGGACGTTTCTGAGCCAGGAACACTGAGCTCTATTCTCAATC  
CGAACCAAGCCGAGCGGCCAGGGGCTGGGGAGGAGTGGGCTGGTTGCGCCCGGGCGGGGTACC  
GCTGTGACCTCCCTTTTACTAAGGTTGAGCGCACCTTCTGTGACATCGCTGAGAAGTACACCTCAATG  
TGATGAGTTCGGCGGGCAGGCCTCTCGGCCAGAGGAGCTTCCACCGGGGCGAGCTCGGACTTGAAGT  
GCTTTCTGAAGGGGGATCGCAGAGGAGGTGCTCCTGCTCCACTTGAGAATGGAATGGCTCTGGCTGGG  
CTGGATGGAACAGAGATGGAAAGTTGCGCTCTCTGACCACCAGGAGAGACACCTTCTGAAGTGGTGA  
CGGATAGCCTCCAAACGGGCCAGCCCTGGCCGACGGACCTGCTCCCGCCAGCCAACAGGAGCCGTTGAC  
CAAAAAAGGTACCACCATATCACCTTACGCCACGCCATGCCCGGTAGCCGCCCCGGTCCAGAATTCCA  
GTGCTGCTTTCAGAGGAAGATACCGGTTCTGAGCCAGCGGGAGCCTGAGTGCCAAGGAGAGATGGAGTA  
AGAGAGCACGCCACAGCAGGACTTGGCCAGGCTGGTCAATGGAGAAACGGCAGGGCAGGCTCCTCCTGAG  
ACTGGCTAGCGGCGCCTTCAAGCAGCAGTGAAGAACAGCGGAGGGCCAGCGAAACCTGAGTGGCACC  
GGCAGCGAGGAGGACACCCCGCCTCTGAGCCTACTGCTCTCCACGCAAGGCCGTGCGCGCTGCCA  
CGACCCGGTACGCATCCCGCGGCCATCAGCGTATCTATGCCTGTTGAGGGCCAACAGCTCCCAGGCGAG  
GCCACACGGAGCTGCATCAGCAACGGATCTCGCAATCAGCAGTAGGCTGCAGTTGCAGAAGCCATCTGGG  
CTGGCGCCAGCTGCTGATCTCCGGCTAAACAGTCCGCTTCCAGGGGCCCGGGCCTGGCCGCGCCAAAG  
TGTCTAAGCCTGCCGCCCGAGATACCCCGCCTGCCAGCATCTACTGCAAGGCATCCCTCCGGATCACC  
GAGGAGCCAGAGCCTTAGCAGGAAAGAGTCTAGTAGCCCTCCCACCAGGCCCGGCTGGGTGCCCCCA  
TCTCGCGGCTCCTCAGGTGCGGTCCCAACCAGAGGCAAGTCTGTGGCCCTAAGAAGGGGCTAAGG  
GAAAGCAGCTGCAGACTCAGCGGCCGCCACAAAGGGCCGGGCCGTAGTATCTGAGGGCAGGCTGGGGC  
AAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR227113 representing NM\_001162864  
 Red=Cloning site Green=Tags(s)

MQCLAALKDETNMSGGGEQADILPANYVVKDRWVLLKIGGGGFGEIYEAMDLLTRENVALKVESAQQP  
 KQVLKMEVAVLKKLQGDHVCRFIGCGRNEKFNYYVMQLQGRNLADLRRSQPRGFTLSTTLRLGKQILE  
 SIEAHSVGLHRDIKPSNFAMGRPLSTYRKCYNLDFGLARQYNTTGDVRRPRNVAGFRGTVRYAVNA  
 HKNREMGRHDDLWSLFYMLVEFVAVGQLPWRKIKDKEQVGMIEKEYEHRMLLKHPSEFHLFLDHIASLDY  
 FTKPDYQLIMSVFENSMMKERGIAENAFDWEKAGTDALLSTSTSTPPQONRQTAAAMFGVVNTPVPGDL  
 LRENTEDVLQGEHLSDQENAPPILPGRPEGLGPGPHLVPHPGGPEAEVWEE TDVNRNKLRLINIGKTPCV  
 EEEQSRGVGVPSSPVRAPPDSPTTPVRS LCYRRVNSPESERLSTAADGRVELQERRSRMDLPGSPSRQAC  
 SSQPAQMLSVDTGHADRQASGRMDVSASVEQEALSNAFRSVPLAEEEDFDSKEWVIIDKETELKDFPPGA  
 EPSTSGTTDEEPEELRPLPEEGEERRRLGTEPTVRPRGRGMHTL TEEDPRQMLPQPAPPQLSQADGRSET  
 SQPPTPGSPSHSPLHSGRPRRRRES DPTGPQRQVFSVAPPFEVNGLPRAVPLALPYQDFKRDLSDYRERA  
 RLLNRVRRVGF SHMLLTAPQVPLAPFQPQANGKEGEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEAG  
 ALGEVLGPRSGSSSEGSRSTERSQEGAPSTLLADDQKEARGRASMADGDLEPEEGSKTLVLVSPGDMKK  
 SPVTAELAPDPDLGTLAALTPQHERPQPTGSQLDVSEPGTLLSSILKSEPKSPGPGAGGGVGLVAPGAVT  
 AVTSPFTKVERTFVHIAEKSHLNVMSGGQASRPEELSTGGELGLEVLSEGGIAEEGAPALENGMALAG  
 LDGTEMESCALSGPPGETPSEVVTDSLNGPALADGPAPASQQEPVTKGTTTISPSRHAMPGRPRSRIP  
 VLLSEEDTGSEPSGSLSAKERWSKRARPQDLARLVMEKRQGRLLLRASGASSSSSEEQRRASET LSGT  
 GSEEDTPASEPTALPRKAVRAATTRSRI PRPISVSMPVEGQQLPGRPHGAASATDLAITSRLQLQKPSG  
 LAPAADLRPKQSASRGP GPRAQVSKPAAPRSPGLPASTARHPSGSPRSQSLSRKESSSPSHQARPGVPP  
 SRGVLQVRSQPEASPVAPKKGPKGKQLQTQRAATKGRAVVSEGRPGAR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



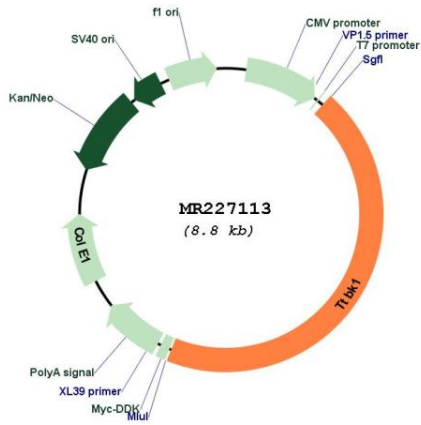
\* The last codon before the Stop codon of the ORF

ACCN: NM\_001162864

ORF Size: 3924 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001162864.1</a> , <a href="#">NP_001156336.1</a>
<b>RefSeq Size:</b>	6959 bp
<b>RefSeq ORF:</b>	3927 bp
<b>Locus ID:</b>	106763
<b>UniProt ID:</b>	<a href="#">Q6PCN3</a>
<b>Cytogenetics:</b>	17 C
<b>MW:</b>	141.6 kDa
<b>Gene Summary:</b>	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]

Product images:



Circular map for MR227113