

Product datasheet for **MG217963**

Ttbk2 (NM_080788) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ttbk2 (NM_080788) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ttbk2
Synonyms:	2610507N02Rik; AI326283; B930008N24Rik; mKIAA0847; Ttbk; Ttbk1; TTK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG217963 representing NM_080788 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGACTAGCCAACCGACGCCACAGGCTGGGAACGTGCTCTCCAATCAGCACCCGCGGGAGAGAATT
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GCTGAAGGTGGAGTCAGCTCAGCAGCCAAAGCAGGTTCTGAAGATGGAGGTTGCTGTGTTGAAGAACTG
CAAGGGAAAGACCATGTTTGTAGATTTATTGGCTGTGGGAGAAATGATCGTTTTCACTACGTGGTCATGC
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TCACCAATTCGTGTCGGATCAGAGATTACTCAGCCAGACAGAGATGTTCCGTTAGTAAGGAAGCTACGTT
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CAAAAGGATCTGGCAGCCTCCACCACACTCAACCAGCTCTAAAACCTCCCCAGGGAAGAGTAAGCCAGC
CAGTAAACTCAGCAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG217963 representing NM_080788
 Red=Cloning site Green=Tags(s)

MGLANRRHRLGTCSPISTRGGENCKTGKIKCLLKETHSWLRREIGNRLNGIHPWELDACVAVLPHQGFAM
 SGGGEQPDILSVGILVKERWVLRKIGGGGFEIYDALMLTRENVALKVESAAQPKQVLKMEVAVLKKL
 QGKDHVCRFIGCGRNDRFNYYVMQLQGRNLADLRRSQSRGFTTISTTLRLGKQILESIESIHSVGLHRD
 IKPSNFAMGRFPSTCRKCFMLDFGLARQFTNSCGDVRPPRAVAGFRGTVRYASINAHNRNEMGRHDDLWS
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 LSDGENGIPVGVSPDKLPGSLGHRPQEKDVWEEMDINKNKIKLGICKAAATEENSHGQVNGILNAPSLG
 SPIRVRSEITQPRDVLVRKLSIHSFELEKRLTLEPKPDTDKFLETCEMKMQKSSAGKEVPPALPH
 KPCVPVVTHTDHIWHYDDEYLPDASKPASANTPEQADGGGNGFIAVNLSSCKQEVDSEKWEIVDKEQDL
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 LYDRDLQAGAAASQFITVTPTSPMEAQAEGPLTAITIPRPSVASTQSTSGSFHYGPPQEKKDLQPLEPT
 VELYSPRENFSGLVVTEGELASGGSRVLDLGLQIDHTGHMLPNMRDGDTSQDLGPKDPPDHNLAVKEFE
 HLPGETEERSLLGSENERLSKQHCIEVSSPGELVTAERAQLAATEPLHVSETONCSVLPNQDKTHE
 IMKLLAVGTSEISPQAIDPHAEGQIQMAAMQKNKLFKDDGIQSESLPRQQDLSAFLHQEGKREKVVPR
 NGELYHCVSENEHGPPTRKMLRSSFVTRHSRIPVLAQEIDSTFESSAISAKEKLLQKKAYQPEIVKLL
 VEKRQFKSFLGDLSSASDKLIEEKLAAPVPFSEEEVAFPSRLAADSHLSRVEDSFLSPIISQARKSK
 IPRPVSWSVDQINGASAPQLPRPPGKPPVRPGVEARLRRYKVLGSSNSDSLFSRLAQILQNGSQKS
 RSTTQCKSPGSPHNPKTPPKSPVPRRSPSASPRSSSLPRTSSSSPSRAGRPHHDQRSSSPHLGRSKSP
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TRTRPLE - GFP Tag - V

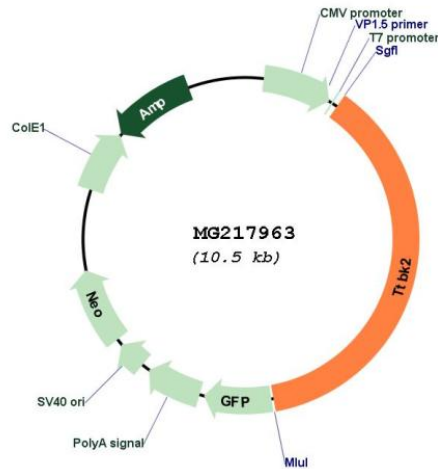
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_080788

ORF Size: 3936 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_080788.3](#), [NP_542966.2](#)

RefSeq Size: 10906 bp

RefSeq ORF: 3939 bp

Locus ID: 140810

UniProt ID: [Q3UVR3](#)

Cytogenetics: 2 E5

Gene Summary:

Serine/threonine kinase that acts as a key regulator of ciliogenesis: controls the initiation of ciliogenesis by binding to the distal end of the basal body and promoting the removal of CCP110, which caps the mother centriole, leading to the recruitment of IFT proteins, which build the ciliary axoneme. Has some substrate preference for proteins that are already phosphorylated on a Tyr residue at the +2 position relative to the phosphorylation site. Able to phosphorylate tau on serines in vitro.[UniProtKB/Swiss-Prot Function]