

Product datasheet for **MG217798**

Ttc21b (NM_001047604) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ttc21b (NM_001047604) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ttc21b
Synonyms:	2410066K11Rik; aln; mKIAA1992; Thm1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG217798 representing NM_001047604 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGACTCCCAGGGGCTGAAGACGCTGATTAACACTATTGTCAAGAGCGCTATTATCACCACGTGCTCC
TTGTTGCCAGTGAAGGGATGAAGAAGTATAGCAGCGACCCAGTCTCCGATTTTACCACGCTACGGCAC
ACTGATGGAGGGTAAAGCGCAAGAAGCCCTTCGGGAGTTTGGAGCCATTAACAACAAGACGTGTCA
CTGTGTTCTCTGATGGCGCTGATGTATGCCATAAAATGAGCCCCAATCCAGACAGAGAAGCTATCTGG
AATTAGATACAAAATGAAGGAGCAACGCAAGGAGGCTGGACGCAAAGCCCTGTACCATGCGGGCCTGTT
TTTATGGCACATTGGTCGTCATGACAAGGCGAGAGAATATATTGACAGAATGTCAAAAATGCCACATGAT
AGCAATGAGGGGCGGATTTTGAAGCGTGGCTTGATATTACAAGAGGGAAGGAACCTTATGCTAAAAAAG
CCCTGCGGATTTTGGAGGGGATTACAAGATGGAAATGATATTTTCGCTCTTCTGGGTAAGGTTCTGTG
CCTTGAGATTCGACAGAATTATCCGGAGCTCTGGAGACCGTGAGCCAGATAATTGTAACTTTCCAAGC
TTCCTTCTGCCTTTGAGAAGAAAATGAAATTACAACCTGGCTTTACAGGATTGGGATCAGACAGTGGAGA
CAGCACAAGGCTGCTGCTTCAAGACAATCACAACGTGGAGGCGCTGAGGATGCTGGCTCTGTATTATCT
GTGTAGGGAAGGGGACGTAGAGAAGGCTGCTACCAAGCTGGAAAATTTAGGAAATGCATTGGATGTCATG
GAACCCAGAAATGCTCAACTTTTTTATAAGATTACACTAGCCTCAGCAGAACGTGTGGACGTAATCAAC
TCATTCTCCAGAAAGTTCAAAGTTTCTAGAAAAGCATTTAGTTTAACTCCCAGCAAGCAGAAATTGC
TACAGAGCTCGGCTACCAATGATTCTCCAAGGCAAGGTCAGGAGGCTGGAAGTGGTACAGGACCGCC
ATGACGCTGAATGAGAGCAACATCTCTGCTGTACCAGGACTTATCCGATGTCAGTTAATAGAGGGCAGT
TGCAAGATGCAGACCAGCAGTTGGAGTTCTTCAAGTGAATCCAGCAGTCAATGGGAAAATCTGCGGAATT
AATGATTTGCATGCGGTTCTTGTACGAAAAAATAATCGTCAGGATGAAGTTATAAATTTGTTGAAT
GATGTTGTGAATACTCACTTTTCACTTGAAGACCTCCGCTCGGCATACAGTATTTGAGAAGCTCA
ACCCTGACTTCTACTAGAAGTTGTTACCGAGTATCTGAATCTCTGTCCAATTCAGCCTGCAGGTCCTGG
ACAACCTTTTCCAGTCTCAGACGTTGTTCTCAGTCTGGAGACGATTATAAGAAGTACCAGGT



[View online >](#)

CTTCCACAAGCTGTCTTCTAATGGCCAAAGTGAAGTATTTGTCAGGTGACACTGAAGCGGCATACAACA
ATCTGCAGCACTGCCTCGAGCACAGCCCCTCTATGCGGAGGCTCACCTCCTGATGGCACAGGTGTACCT
GTCCCAAGACAAAGTCAAGCTGTGTTCCGAGTCGCTTGAACCTTTGTCTGAGCTACAATTTAATGTGAGA
GAGTACCCATTATATCATTTAATCAAAGCACAGTCACAAAAGAAAATGGGGGAAGTAGCAGAAGCAATTA
AAACTCTGCACATGGCAATGAACCTGCCAGGAATGAGGAGAAGCAGAGCCTCCTCGAAATCAAAGCACAG
AACTGAGGTGGACGCGAGCCATCGGTTATCCATCTTCTGGAGTTGGTGGAGGTCCACCGCTTAAATGGA
GAACAGCATGAGGCAGCAAAGGTTTTACAGGATGCCATCCATGAGTTTTTCGGAACTTGTGAAGAATTAC
GTGTCACTATTGCTAATGCAGACCTGGCTCTGGCCCAAGGAGATACGGATCGTGCAATTAAGCATGCTTCG
AAATGTCACAACCGAACAGCCTTATTTTATAGAGGCCAAAAGAAAAGATGGCAGATATTTATCTGAAGCAT
AGGAAAGAGAAAATGTTGTATATCACTTGTACAGAGAAATTGCTGAGAGAATGCCAGTCCCGGTCTT
TCCTGCTCCTCGGCGATGCGTACATGAACATTCAGGAGCCAGAAGAAGCCATAGTGGCCTATGAGCAAGC
ACTCAATCAGAACCCCAAAGATGGAACACTGGCAAGAAAATTTGAAAAGCACTTGTCAAACTCACAAT
TACTCAAAGGCAATCACCTATTATGAAGCGCTCTGAAAAGTGGACAGCAGAATTGCCTTTGCTATGACC
TGGCCGAGCTGCTACTGAGACTGAAGCTGTACGAGAAAGCAGAGAAAGTCTCCAGCACTCTCTAGCTCA
TGAGCCTGTAAGTGAGTTGTCAGCTCTCATGGTGGATGGGCGGTCCCAAGTCCTTCTTGCAAAGTTTAC
TCTAAAATGGAGAGACCCAGCGACGCGATTGCCGATTACAGCAGGCTCGAGAGCTGCAGGCTCGGATAT
TGAAAGCGAGTTCAGATGGAGCAGCCAGATGCAGTTCCTTACAGAAAACACTTCGCAGCTGAAATTTGTGC
AGAGATTGCGAAACACTCCGCGCTCAGCGAGACTATGAGAAAAGCAATTACATTTTATAGAGAAGCCCTG
GTTCAATGTGAAACAGACAGTAAGATAATGTTGGAAGTGGCGCAGTTATACCTGGCCCAAGAAGACCTTG
ACGCTCCTCGGACACTGTGCGCTGCTTCTCCAGAGGGACCAGGACAATGAACCTGCCACCATGTTGAT
GGCCGACCTCATGTTAGAAAAGCAAGACTATGAACAAGCAGTGTATCATCTGCAGCAGCTTTTAGACCGG
AAACCAGATAATTTTATGACTTTGTCCCGTTTGATTGATCTCCTGAGAAGATGTGGGAACTTGAGGATG
TTCCGAGATTTTCTTGATGGCTGAGAAACACAACACTCCAGAACAAAATTTGAGCCAGGATTTTCAGTACTG
TAAAGGATTACATTTTTTGGTATACTGGAGAACCAATGATGCCCTTCGACATTTTAAATAAGCTCGGAAA
GATAGTACTGGGTGAGAAATGCACTTTAATATGATAGAAATCTGCCTAAATCCAGACAATGAAACTA
TTGGAGGTGAAGTGTGAAAACCTGAATGGAGACCTGGGCACTTCCCCTGAGAAGCAGGAGTCTGTGCA
GTTAGCAGTGAGGACAGCAGAAAAGCTCCTTAAGGAACTGAAGCCTCAGACCGTCCAGGGCCGCTGCAA
CTCCGCATAATGGAAAACCTGCTGCTTGTGGCCACCAAGCAGAAGTCCAGTGTGGAGCAGGCACTGAACA
CCTTACCAGAAATCGCAGCCTCCGAGAAGGATCATATCCAGCTCTCTTGGGAATGGCAACGGCTTATAT
GATCTTGAACAGACTCCAAAAGCCAGAAACAGCTGAAGCGGATTGCAAAAATGCCTTGAATCCTATT
GAAGCCGAGGATCTGGAGAAGAGCTGGCTGCTGCTTGTGATATTTATATCCAGTCAAGCAAAATATGACA
TGGCAGAGGAATTAATAAGCGGTGCTCTGCCATAACCGGTCTGCTGCAAAGCTTATGAATATATGGG
GTACATTATGGAGAAAGCAAGCATACACAGATGCGGCCTTCAACTATGAGATGGCATGAAAACATAGC
AACCAGACAAATCCTGCAGTGGGATACAAATTGGCATTAAATTACCTAAAAGCAAAACGATATGTGGATG
CAATTGACGTATGTCACCAGGTTCTTGAAGCACATCCAACCTACCCAAAATCAGAAAGGATATACTTGA
TAAGGCGCGTGCATCTTTAAGACCT

ACGCGTACGCGGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG217798 representing NM_001047604
 Red=Cloning site Green=Tags(s)

MDSQGLKTLINYYCQERYHHVLLVASEGMKKYSSDPVFRFYHAYGTLMEGKAQEALREFEAIKKNKQDVS
 LCSLMALMYVHKMSPNDREAILELDTKMKEQRKEAGRKALYHAGLFLWHIGRHDKAREYIDRMSKMPHD
 SNEGPILKAWLDITRGKEPYAKKALRYFEEGLQDGNDFALLGKVLCEIRQNYSGALETVSQIIIVNFP
 FLPAFEKMKMLQLALQDWDQTVETAQRLLQLQDNHNVEALRMLALYYLCREGDVEKAATKLENLGNALDVM
 EPQNAQLFYKITLAFSRTCGRNQLILQKVQSFLEKAFSLTPQAEIATELGYQMILQGVKEAWKWYRTA
 MTLNESNISAVTGLIRCQLIEGQLQDADQQLFEFFSEFQQSMGKSAELMYLHAVLATKNNRQDEVINLLN
 DVVNTFHSLEDLPLGIQYFEKLNPDFLLEVVTEYLNLCPIQPAGPGQPLSPVLRRCSSVLETIIRSVPG
 LPQAVFLMAKVYLSGDTEAAYNNLQHCHLEHSPSYAEHLLMAQVYLSQDKVKLCSQSLELCLSYNFNVR
 EYPLYHLIKAQSQKMGVEAEAIKTLHMAMNLPGMRRSRASSKSKHRTEVDASHRLSIFLELVEVHRLNG
 EQHEAAKVLQDAIHEFSGTCEELRVTIANADLALAQGDTDRALSMLRNVTEQPYFIEAKEKMADIYKHK
 RKEKMLYITCYREIAERMSPRSFLLLGDAYMNIQEPEEAIVAYEQALNQNPKDGTLARKIGKALVKTHN
 YSKAITTYEAALKSGQQNCLCYDLAELLLRLKLYEKAEKVLQHSLAHEPVSELSALMVDGRSQVLLAKVY
 SKMERPSDAIAALQQARELQARILKRVQMEQPDVPSQKHFAEICAIEIAKHSAAQRDYEKAITFYREAL
 VHCETDSKIMLELAQLYLAQEDLDASLRHCALLQRDQDNEPATMLMADLMFRKQDYEQAVYHLQQLLDR
 KPDNFMTLSRLIDLLRRCGKLEDVPRFFLMAEKHNSRTKLEPGFYCKGLHFYWTGEPNDALRHFNKARK
 DSDWGQNALYNMIEICLNPNETIGGEVFENLNGDLGTSPEKQESVQLAVRTAEKLLKELKPQTVQGRLO
 LRIMENCLMATKQKSSVEQALNTFTEIAASEKDHPALLGMATAYMILKQTPKARNQLKRIAKMPWNPI
 EAEDLEKSWLLLADIYIQSAKYDMAEELLKRCLCHNRSCCKAYEYMGYIMEKEQAYTDAAFNYEMAWKHS
 NQTNPAVGYKLAFNLYLAKRYVDAIDVCHQVLEAHPTYPKIRKDILDKARASLRP

TRTRPLE - GFP Tag - V

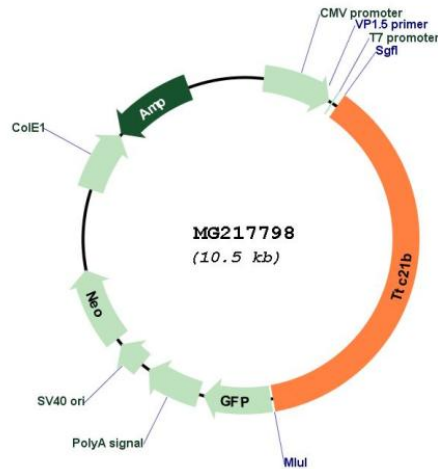
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001047604

ORF Size: 3945 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_001047604.2](#), [NP_001041069.1](#)

RefSeq Size: 4472 bp

RefSeq ORF: 3948 bp

Locus ID: 73668

UniProt ID: [Q0HA38](#)

Cytogenetics: 2 C1.3

Gene Summary:

Component of the IFT complex A (IFT-A), a complex required for retrograde ciliary transport and entry into cilia of G protein-coupled receptors (GPCRs). Essential for retrograde trafficking of IFT-1, IFT-B and GPCRs (By similarity). Negatively modulates the SHH signal transduction (PubMed:18327258).[UniProtKB/Swiss-Prot Function]