

Product datasheet for **MG202062**

Tmed2 (NM_019770) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Tmed2 (NM_019770) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Tmed2
Synonyms: 1110032D12Rik; 1810020N21Rik; p24beta1; Rnp24; Sid394
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG202062 representing NM_019770
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGTGACGCTCGCCGAGCTGCTGGCGCTGCTGGCCGCGCTGCTGGCCACGGCCTCGGGCTACTTTGTCA
 GCATCGACGCGCACGCCGAGGAGTGCTTCTTCGAGCGGGTACCTCCGGCACCAAGATGGGCCTCATCTT
 CGAGGTGGCGGAGGGCGGCTTCTGGACATCGACGTGGAGATCACAGGACCAGATAATAAAGGAATCTAT
 AAAGGAGACCGGGAGTCCAGCGGAAGTACACATTTGCAGCCACATGGATGGGACATACAAGTTCTGCT
 TTAGCAATAGGATGTCCACTATGACTCCAAAGATAGTAATGTTCCACATTGACATTGGGGAGGCTCCCAA
 AGGACAAGACATGGAGACAGAAGCTCATCAGAACAAGCTAGAAGAAATGATTAATGAGCTGGCAGTGGCA
 ATGACAGCCGTAAGCACGAACAGGAGTACATGGAAGTCCGGGAGAGAATACACAGAGCCATCAATGACA
 ACACAAACAGCAGAGTGGTCTTTGGTCTTCTCGAAGCTCTTGTCTAGTTGCCATGACATTGGGACA
 GATCTACTACCTGAAGAGATTTTTTGAAGTCCGGAGGGTTGTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG202062 representing NM_019770
 Red=Cloning site Green=Tags(s)

MVTLAELLALLAALLATASGYFVSIDAHAECCFFERVTSGTKMGLIFEVAEGGFLDIDVEITGPDNKGIIY
 KGDRESSGKYTFAAHMDGTYKFCFSNRMSTMPKIVMFTIDIGEAPKGQDMETEAHQNKLEEMINELAVA
 MTAVKHEQEYMEVRERIHRAINDNNTNSRVVLSFFFEALVLVAMTLGQIYYLKRFFEVRRVV

TRTRPLE - GFP Tag - V

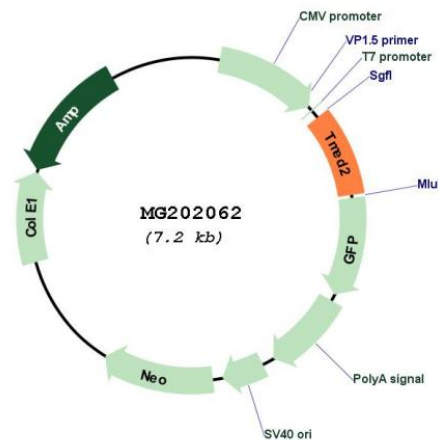
Restriction Sites: Sgfl-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_019770

ORF Size: 603 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_019770.2](#), [NP_062744.1](#)

RefSeq Size: 2029 bp

RefSeq ORF: 606 bp

Locus ID: 56334

UniProt ID: [Q9R0Q3](#)

Cytogenetics: 5 F

Gene Summary: Involved in vesicular protein trafficking. Mainly functions in the early secretory pathway but also in post-Golgi membranes. Thought to act as cargo receptor at the luminal side for incorporation of secretory cargo molecules into transport vesicles and to be involved in vesicle coat formation at the cytoplasmic side. In COPII vesicle-mediated anterograde transport involved in the transport of GPI-anchored proteins and proposed to act together with TMED10 as their cargo receptor; the function specifically implies SEC24C and SEC24D of the COPII vesicle coat and lipid raft-like microdomains of the ER. Recognizes GPI anchors structural remodeled in the ER by PGAP1 and MPPE1. In COPI vesicle-mediated retrograde transport inhibits the GTPase-activating activity of ARFGAP1 towards ARF1 thus preventing immature uncoating and allowing cargo selection to take place. Involved in trafficking of G protein-coupled receptors (GPCRs). Regulates F2RL1, OPRM1 and P2RY4 exocytic trafficking from the Golgi to the plasma membrane thus contributing to receptor resensitization. Facilitates CASR maturation and stabilization in the early secretory pathway and increases CASR plasma membrane targeting. Proposed to be involved in organization of intracellular membranes such as the maintenance of the Golgi apparatus. May also play a role in the biosynthesis of secreted cargo such as eventual processing (By similarity). Required for morphogenesis of embryo and placenta.[UniProtKB/Swiss-Prot Function]