

Product datasheet for **MG224367**

Tm4sf20 (NM_025453) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
 Product Name: Tm4sf20 (NM_025453) Mouse Tagged ORF Clone
 Tag: TurboGFP
 Symbol: Tm4sf20
 Synonyms: 1810018L02Rik
 Mammalian Cell Selection: Neomycin
 Vector: pCMV6-AC-GFP (PS100010)
 E. coli Selection: Ampicillin (100 ug/mL)
 ORF Nucleotide Sequence: >MG224367 representing NM_025453
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACGTGCTGTGAAGGGTGGACATCCTGCAATGGCTTCAGCCTGCTCATTCTGATCCTGCTAGGAGTGG
 TTATCAATTGTATACCCCTGGGAATCAGCTTAGTGGAGGCAGACTCGACTTCTCAAACCCCATCTCCTG
 CTATGAGTGGTGGTTCCAGGAATTATAGGAGCAGGTCTGATGGCCATCCAGCAACAACAATGTCCTTG
 GCAGCAAGAAAAAGAGCGTGTGCAACAATAAGACTGGGATGTTCTTTTCATCACTCTTCAGTGTGATCA
 CAGTTGTTGGTGTGTATTGCATGTTGGTATCACTCCAGGCTCTCTTGAAGGACCTTAATTTGTAA
 TACTCAGGCCAACAGTACTGTCACCTTGTGAATTTTCATTGAAAACTTAAGTAAATTTGATCCTGAATCC
 TTCAATCTGCTGTGGTTCTCAATGGCACTTGTGTTTCTCCTACTGATTTAAAAACCCACCATCAATA
 ACATGGTCAGTAACTGGAAAATACCCAACCTCAACTCTGAAGAAGACAGACAGGATTTTCCACTTCTC
 AGTATTTATGAGTCTCCTGCTTGTGGAATCCTGGAGCTCCTGTTTGGGCTCAGTCAGATACTCATTGGT
 TTCCTTGGCTGTCTGTGTGGCTCTCTCAGCGACGGAGTCAAATTGTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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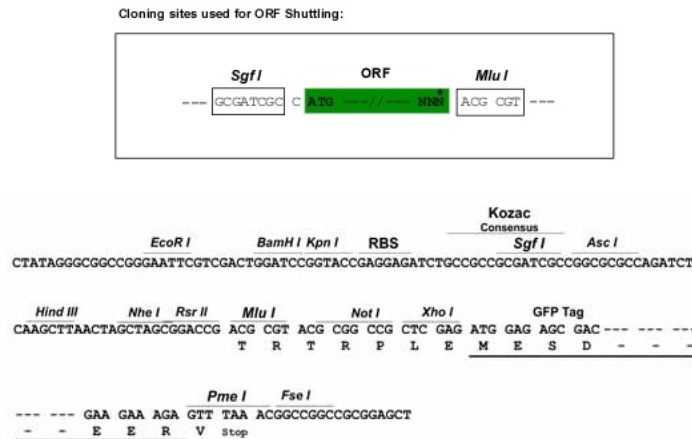
Protein Sequence: >MG224367 representing NM_025453
 Red=Cloning site Green=Tags(s)

MTCCEGWTSCNGFSLILILLGVVINCIPLGISLVEADSTSQNPISCYEWFPGIIGAGLMAIPATTMSL
 AARKRACCNNKTGMFLSSLFSVITVVGAVYCMVLVSLQALLEGPLICNTQANSTVTCFSLKNLSKFDPE
 FNLLWFFNGTCVSPTDFKNPTINNMVSNWKIPNSNSEEDRHRIHFHFSVFMSSLLLVGILELLFGLS
 QILIG FLGCLCGVSQRRSQIV

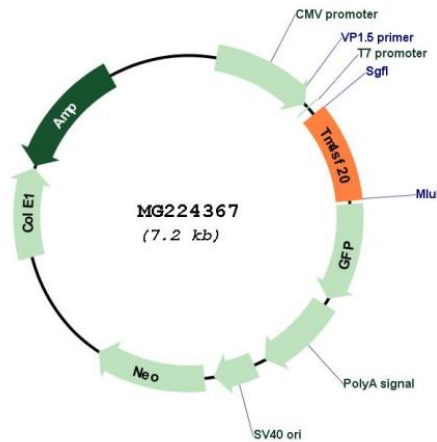
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_025453

ORF Size: 678 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_025453.4](#)

RefSeq Size: 1503 bp

RefSeq ORF: 681 bp

Locus ID: 66261

UniProt ID: [Q9CQY8](#)

Cytogenetics: 1 C5

Gene Summary: Polytopic transmembrane protein. Inhibits regulated intramembrane proteolysis (RIP) of CREB3L1, inhibiting its activation and the induction of collagen synthesis. In response to ceramide, which alters TM4SF20 membrane topology, stimulates RIP activation of CREB3L1. Ceramide reverses the direction through which transmembrane helices are translocated into the endoplasmic reticulum membrane during translation of TM4SF20, this mechanism is called 'regulated alternative translocation' (RAT) and regulates the function of the transmembrane protein.[UniProtKB/Swiss-Prot Function]