

## Product datasheet for **RC204155**

### TM7SF1 (GPR137B) (NM\_003272) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TM7SF1 (GPR137B) (NM_003272) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TM7SF1
Synonyms:	TM7SF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204155 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGGCCCGAGCGTCCCCGGCCGCGGGCAGCGCCCCGGCCCGATGGAGACCCCGCCGTGGGACCCAG  
CCCACAACGACTCGTGGCCGCCCACGCTGACCCCGCCCGTGGCCCCCTACGTGAAGCTTGGCCTCACCGT  
CGTCTACACCGTGTCTACGCGCTGCTCTTCGTGTTTCATCTACGTGCAGCTCTGGCTGGTCTGCGTTAC  
CGCCACAAGCGGCTCAGCTACCAGAGCGTCTTCTCTTTCTCTGCTCTTCTGGGCTCCCTGCGGACCG  
TCCTCTTCTCTTACTTCAAAGACTTCGTGGCGGCAATTCGCTCAGCCCTTCGTCTTCTGGCTGCT  
CTACTGCTCCCTGTGTGCTGCAGTTTTTCACCTCACGCTGATGAACCTGTACTTCACGCAGGTGATT  
TCAAAGCCAAGTCAAAATATTCTCCAGAATTACTCAAATACCGGTTGCCCTCTACCTGGCCTCCCTCT  
TCATCAGCCTTGTTCCTGTGGTGAATTTAACCTGTGCTGTGCTGGTAAAGACGGGAAATGGGAGAG  
GAAGGTTATCGTCTCTGTGCGAGTGGCCATTAATGACACGCTCTTCGTGCTGTGTGCCGTCTCTCTCC  
ATCTGTCTTACAAAATCTAAGATGTCCTTAGCCAACATTTACTTGGAGTCCAAGGGCTCCTCCGTGT  
GTCAAGTGACTGCCATCGGTGTCACCGTGATACTGCTTTACACCTCTCGGGCTGCTACAACCTGTTTAT  
CCTGTCAATTTCTCAGAACAAGAGCGTCCATTCCTTTGATTATGACTGGTACAATGTATCAGACCAGGCA  
GATTTGAAGAATCAGCTGGGAGATGCTGGATACGTATTATTTGGAGTGGTATTGTTTGGGAACTCT  
TACCTACCACCTTAGTCGTTTATTCTTCCGAGTTAGAAATCTACAAAGGACCTTACCAACCTGGAAAT  
GGTCCCCAGCCATGGATTCACTCCAGATCTTATTTCTTTGACAACCCTCGAAGATATGACAGTGATGAT  
GACCTTGCTGGAACATTGCCCTCAGGGACTTCAGGGAGGTTTTGCTCCAGATTAATGATTGGGGAC  
AACAACTAACAGCTTCTGGCACAAGCAGGAACCTTGAAGACTCAACTTTGGATCCTGACAAACCAAG  
CCTTGGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC204155 protein sequence  
Red=Cloning site Green=Tags(s)

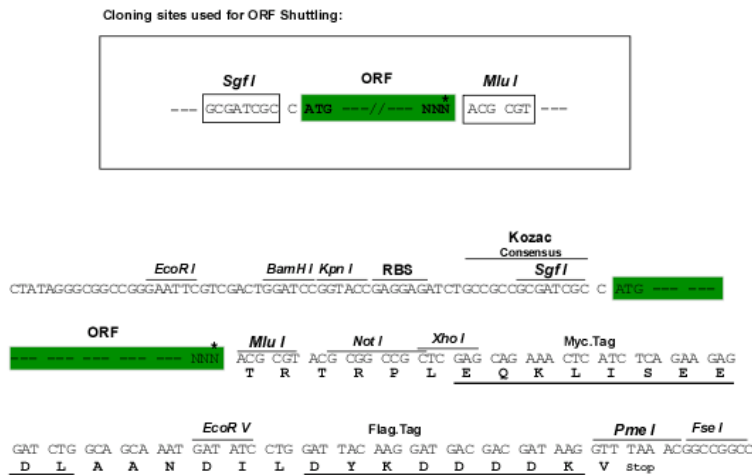
MRPERPRRGSAPGPMETPPWDPARNDLPPTLTPAVPPYVKLGLTVVYTVFYALLFVFIYVQLWLVRLY  
 RHKRLSYQSVFLFLCLFWASLRTVLF SFYFKDFVAANSLSPFVFWLLYCFPVCLQFFTLTLMNLYFTQVI  
 FKAKSKYSPELLKYRLPLYLASLFLISLVFLLVNLTCAVLVKTGNWERKVI VSVRVAINDTLFVLCVLS  
 ICLYKISKMSLANIYLESKGSSVCQVTAIGVTVILLYTSRACYNLFILSFQNKSVHSFDYDWYNVSDQA  
 DLKNQLGDAGYVLFVVLVFWELLPTTLVYFFRVRNPTKDLTNPGMVPSHGFSRSPSYFFDNPRRYDSD  
 DLAWNIA PQGLQGGFAPDYDYGQQTNSFLAQAGTLQDSTLDPDKPSLG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6174\\_g02.zip](https://cdn.origene.com/chromatograms/mk6174_g02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



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

**ACCN:** NM\_003272

**ORF Size:** 1197 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\\_003272.4](#)

**RefSeq Size:** 2046 bp

**RefSeq ORF:** 1200 bp

**Locus ID:** 7107

**UniProt ID:** [O60478](#)

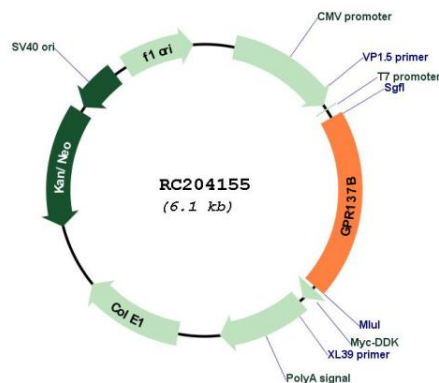
**Cytogenetics:** 1q42.3

**Protein Families:** Druggable Genome, Transmembrane

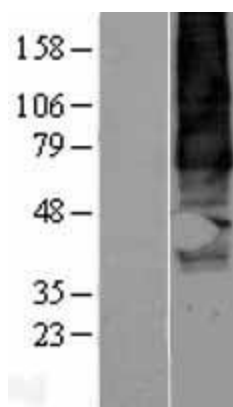
**MW:** 45.6 kDa

**Gene Summary:** Lysosomal integral membrane protein that regulates the localization and activity of mTORC1, a signaling complex promoting cell growth in response to growth factors, energy levels, and amino acids (PubMed:31036939). Interacts with Rag GTPases and increases the lysosomal localization and activity of Rag GTPases and thereby regulates mTORC1 translocation and activity in lysosome (PubMed:31036939). Involved in the regulation of lysosomal morphology and autophagy (PubMed:31036939).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RC204155



Western blot validation of overexpression lysate (Cat# [LY401127]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204155 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).