

## Product datasheet for **RG226577**

### **SAR1 (SAR1A) (NM\_001142648) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SAR1 (SAR1A) (NM\_001142648) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** SAR1A  
**Synonyms:** masra2; SAR1; Sara; SARA1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG226577 representing NM\_001142648  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCTTTCATCTTTGAGTGGATCTACAATGGCTTCAGCAGTGTGCTCCAGTTCCTAGGACTGTACAAGA  
 AATCTGGAAAACCTGTATTCTTAGGTTGGATAATGCAGGCAAACCACTCTTCTCACATGCTCAAAGA  
 TGACAGATTGGGCCAACATGTTCCAACACTACATCCGACATCAGAAGAGCTAACAAATTGCTGGAATGACC  
 TTTACAACCTTTGATCTTGGTGGGCACGAGCAAGCACGTCGCGTTTGGAAAAATTATCTCCAGCAATTA  
 ATGGGATTGTCTTCTGGTGGACTGTGCAGATCATTCTCGCTCGTGAATCCAAAGTTGAGCTTAATGC  
 TTTAATGACTGATGAAACAATATCCAATGTGCCAATCCTTATCTTGGGTAACAAAATTGACAGAACAGAT  
 GCAATCAGTGAAGAAAACTCCGTGAGATATTTGGGCTTTATGGACAGACCACAGGAAAGGGGAATGTGA  
 CCCTGAAGGAGCTGAATGCTCGCCCATGGAAGTGTTCATGTGCAGTGTGCTCAAGAGGCAAGGTTACGG  
 CGAGGGTTTCCGCTGGCTCTCCAGTATATTGAC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG226577 representing NM\_001142648  
 Red=Cloning site Green=Tags(s)

MSFIFEWIYNGFSSVLQFLGLYKKSGLVFLGLDNAGKTTLLHMLKDDRLGQHVPTLHPTSEELTIAGMT  
 FTTFDLGGHEQARRVWKNYLPAINGI VFLVDCADHSRLVESKVELNALMTDEISNPVILILGNKIDRTD  
 AISEEKLREIFGLYGQTTGKGNVTLKELNARPMVEVFMCSVLKRQGYGEGFRWLSQYID

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

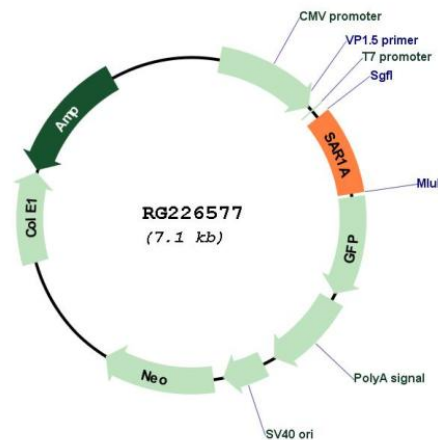


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_001142648

ORF Size: 594 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\\_001142648.2](#)

**RefSeq Size:** 3088 bp

**RefSeq ORF:** 597 bp

**Locus ID:** 56681

**UniProt ID:** [Q9NR31](#)

**Cytogenetics:** 10q22.1

**Gene Summary:** Involved in transport from the endoplasmic reticulum to the Golgi apparatus (By similarity). Required to maintain SEC16A localization at discrete locations on the ER membrane perhaps by preventing its dissociation. SAR1A-GTP-dependent assembly of SEC16A on the ER membrane forms an organized scaffold defining endoplasmic reticulum exit sites (ERES). [UniProtKB/Swiss-Prot Function]