

## Product datasheet for MR201280

### Selenof (NM\_053102) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Selenof (NM\_053102) Mouse Tagged ORF Clone  
**Symbol:** Selenof  
**Synonyms:** 9430015P09Rik; Sep; Sep15  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR201280 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGGCAGGGCAGGGTGGGTGGCTGCGGCCGCTCTGGGGCTGCGCTTGCTGCTGGCGACTGCGTTTC  
 AAGCGGTGTCTGCTCTGGGGCAGAGTTTGCCTCAGAGGCATGCAGAGAGTTGGGTTTCTCCAGCAACT  
 GCTCTGCAGCTCTTGGCATCTTCTTGGACAGTTAATCTGCTCCCACTGGACCCTGTTTGCAGAGGGTGC  
 TGTCAGGAAGAAGCACAATTTGAAACCAAAAAGCTGTATGCAGGAGCCATCCTTGAAGCTGCGGATGAA  
 AATTGGGAGGTTGCCTCAAGTCCAAGCTTTTGTGAGAAGTGATAAACCCTTTCAGAGGCTACA  
 GATCAAGTATGTTTCGAGGCTCAGACCCTGTACTAAAGCTTTTGGACGACAACGGGAACATTGCTGAAGAA  
 CTAAGCATCCTCAAATGGAACACAGACAGTGTGAAGAGTTCTGAGCGAGAAGTTGGAACGCATA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR201280 protein sequence  
 Red=Cloning site Green=Tags(s)

MAAGQGGWLRPALGLRLLLATAFQAVSALGAEFASEACRELGFSSNLLCSCDLLGQFNLLPLDPVCRGC  
 CQEAAQFETKKLYAGAILEVCG\*KLGRLLPQVQAFVRSKPKLFRGLQIKYVRGSDPVLKLLDDNGNIAEE  
 LSILKWNTDSVEEFLSEKLRI

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI



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Cloning Scheme:



ACCN: NM\_053102

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](#) The expression of this clone is not guaranteed due to the nature of selenoproteins.

OTI Annotation: This clone encodes a selenoprotein containing the rare amino acid selenocysteine (Sec). Sec is encoded by UGA codon, which normally signals translational termination. Expression of this clone is not guaranteed due to the nature of selenoproteins.

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\\_053102.1](#), [NM\\_053102.2](#), [NP\\_444332.1](#)

RefSeq Size: 1515 bp

RefSeq ORF: 489 bp

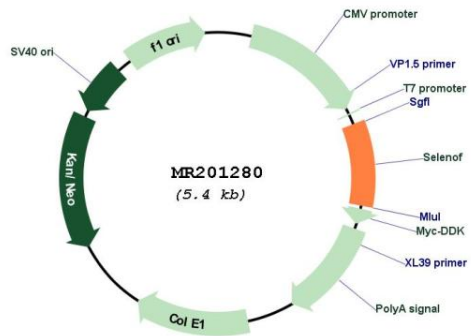
Locus ID: 93684

UniProt ID: [Q9ERR7](#)

Cytogenetics: 3 H2

**Gene Summary:** The protein encoded by this gene belongs to the SEP15/selenoprotein M family. The exact function of this protein is not known; however, it has been found to associate with UDP-glucose:glycoprotein glucosyltransferase (UGTR), an endoplasmic reticulum(ER)-resident protein, which is involved in the quality control of protein folding. The association with UGTR retains this protein in the ER, where it may play a role in protein folding. Knockout studies in mice also suggest a role for this gene in cataract formation and colon carcinogenesis. This protein is a selenoprotein, containing the rare amino acid selenocysteine (Sec). Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. [provided by RefSeq, Nov 2016]

**Product images:**



Circular map for MR201280