

Product datasheet for RR213906

Selenof (NM_133297) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Selenof (NM_133297) Rat Tagged ORF Clone
Symbol: Selenof
Synonyms: Sep15
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RR213906 representing NM_133297
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGCAGGGCAGGGCGGGTGGCTCCGGCCCGCTGGGGCTTCGCTTACTGCTGGCGACTGCGTTTC
 AAGCGGTGTCTGCTCTTGGGGCAGAGTTCTCGTCAGAGGCATGCCGGGAGTTGGGCTTCTCCAGCAACT
 GCTCTGCAGCTCCTGCGATCTCCTTGGACAGTTAACTGCTTCCACTGGATCCTGTCTGCAGAGGCTGC
 TGTCAGGAAGAAGCGCAGTTTGAACCAAAAAGCTGTATGCAGGAGCCATCCTTGAAGTCTGTGGATGAA
 AATTGGGGAGGTTCCCTCAAGTCCAAGCTTTTGTGAGAAGCGATAAACCCTAACTGTTTCAGAGGCTACA
 GATCAAGTATGTTTCGAGGCTCAGACCCTGTACTAAAGCTTTTGGACGACAACGGGAACATTGCTGAAGAG
 CTCAGCATCCTCAAGTGAACACAGACAGTGTGAAGAGTTCTGAGCGAGAAGCTGGAACGCATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR213906 representing NM_133297
 Red=Cloning site Green=Tags(s)

MAAGQGGWLRPALGLRLLLLATAFQAVSALGAEFSSEACRELGFSSNLLCSCDLLGQFNLLPLDPVCRGC
 CQEAAQFETKLYAGAILVCG*KLGRFPQVQAFVRS DKPKLFRGLQIKYVRGSDPVLKLLDDNGNIAEE
 LSILKWNTDSVEEFLSEKLRI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_133297

ORF Size: 486 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](#) 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_133297.2](#), [NP_579831.2](#)

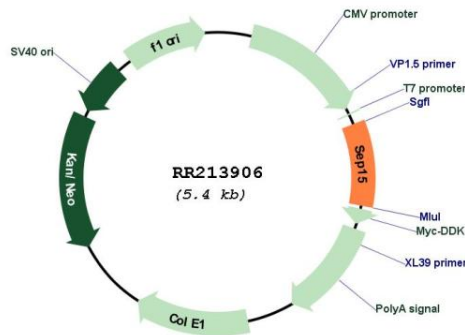
RefSeq Size: 1537 bp

RefSeq ORF: 489 bp

Locus ID: 113922
UniProt ID: [Q923V8](#)
Cytogenetics: 2q44
MW: 17.8 kDa

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 RR213906