

## Product datasheet for MC227396

### Selenop (NM\_001042613) Mouse Untagged Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | Selenop (NM_001042613) Mouse Untagged Clone  |
| Tag:                      | Tag Free   |
| Symbol:                   | Selenop  |
| Synonyms:                 | AU018766; D15Ucl; D15Ucla1; s; Se; Se-P; selp; Sepp1                               |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-Entry (PS100001)   |
| E. coli Selection:        | Kanamycin (25 ug/mL)   |
| Fully Sequenced ORF:      | >MC227396 representing NM_001042613<br>Red=Cloning site Blue=ORF Orange=Stop codon |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGTGGAGAAGCCTAGGGCTTGCCCTGGCTCTCTGTCTCCTCCCCTATGGAGGAGCAGAGAGCCAAGGCC  
AAAGCTCTGCTTGTTACAAAGCCCCGAGTGGTACATAGGAGATCAAAATCCAATGCTAAACTCAGAGGG  
CAAAGTGACAGTGGTTGCTCTTCTCAAGCCAGCTGATACTTGTGCTTCTGCAGGCATCCAGATTGGAA  
GACCTGCGCATAAACTAGAAAGCCAAGGATATTTAACATCTCTTACATTGTTGTTAACCATCAAGGAT  
CTCCTTCCCAATTAACACTCACATCTTAAAAAGCAGGTGTGAGAACACATCGCAGTGTACAGACAAGA  
AGAAGATGGCATAGATGTCTGGACTCTCTTAAATGGAAACAAAGATGACTTCCTCATCTATGACAGATGT  
GGCCGTCTTGTGTATCACCTTGGTTTGCCCTTACTCCTTCCTCACATTCCCATATGTTGAAGAAGCCATTA  
AGATCGCTTACTGTGAGGAGAGGTGCGGAACTGCAATCTCACGAGTCTTGAAGATGAAGACTTCTGTAA  
AACTGTGACCTCAGCTACTGCCAATAAACTGCGGAGCCCTCAGAGGCTCATAGCCACCACAAACACCAC  
AACAAACATGGGAGGAGCATCTTGGCAGCAGTAAGCCTTCAGAGAATCAGCAACCCAGGGCCATCAGAGA  
CGACTCTGCCTCCTTCAGGCTTGCAACCACCACAGGCATAGGGGCCAGCACAGGCAGGGTCACTTAGA  
GAGCTGAGACACCACAGCAAGTGAAGGCTTGACCTTTCACTTGCCAGAGGAAGCTCTGACGAAGGGGG  
TGCATCAACCAGCTCCTGTGAAGTTGTCTAAGGAGTCCGAGGCAGCCCCAGCAGCTGCTGTCACT  
GCCGCCACCTCATATTTGAGAAGTCAGGGTCTGCAATTGCTTGACAGTGTGCGGAAAACCTCCCATCCTT  
ATGTAGCTGACAGGGGCTTTTCGCGGAGGAGAAAGTCACTGAATCCTGTCAAGTGTAGGTACCTCCAGCT  
GCCTGACAAAATCAGCCCATGAACCCATGGAAGCCAACCCCACTGAAGCTGAGATAATCAGACCAGGA  
AGTGAAAATGACATTCAAAC**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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|                               |  |
|-------------------------------|--|
| <b>Restriction Sites:</b>     | Sgfl-MluI  |
| <b>ACCN:</b>                  | NM_001042613   |
| <b>Insert Size:</b>           | 1143 bp  |
| <b>OTI Disclaimer:</b>        | <p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p> |
| <b>OTI Annotation:</b>        | Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.   |
| <b>Components:</b>            | 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).   |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>  |
| <b>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.   |
| <b>RefSeq:</b>                | <a href="#">NM_001042613.1</a> , <a href="#">NP_001036078.1</a>  |
| <b>RefSeq Size:</b>           | 2013 bp  |
| <b>RefSeq ORF:</b>            | 1143 bp  |
| <b>Locus ID:</b>              | 20363  |
| <b>UniProt ID:</b>            | <a href="#">P70274</a>   |
| <b>Cytogenetics:</b>          | 15 1.84 cM   |

**Gene Summary:**

This gene encodes a selenoprotein that is predominantly expressed in the liver and secreted into the plasma. This selenoprotein is unique in that it contains multiple selenocysteine (Sec) residues per polypeptide (10 in mouse), and accounts for most of the selenium in plasma. It has been implicated as an extracellular antioxidant, and in the transport of selenium to extra-hepatic tissues via apolipoprotein E receptor-2 (apoER2). Mice lacking this gene exhibit neurological dysfunction, suggesting its importance in normal brain function. 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. The mRNA for this selenoprotein contains two SECIS elements.

Alternatively spliced transcript variants differing in 5' non-coding region have been described for this gene. Expression of these variants varies in different tissues and developmental stages (PMID:23064117). [provided by RefSeq, Feb 2017]

Transcript Variant: This variant (2, also known as Sepp1b) uses an alternate 5' non-coding exon, hence has a different 5' UTR compared to variant 1. Variants 1, 2 and 3 encode the same protein containing 10 selenocysteine residues. Variant Sepp1b is specifically localized to the hippocampus in the brain, and is a specific target for regulation by miR-7 microRNA (PMID:23064117).