

## **Product datasheet for SC316197**

## SEPP1 (SELENOP) (NM 001085486) Human Untagged Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: SEPP1 (SELENOP) (NM\_001085486) Human Untagged Clone

Symbol: SELENOP

Synonyms: SELP; SeP; SEPP; SEPP1

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Fully Sequenced ORF: >SC316197 representing NM\_001085486.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGTGGAGAAGCCTGGGGCTTGCCCTGGCTCTCTGTCTCCCCATCGGGAGGAACAGAGAGCCAGGAC CAAAGCTCCTTATGTAAGCAACCCCCAGCCTGGAGCATAAGAGATCAAGATCCAATGCTAAACTCCAAT GGTTCAGTGACTGTGGTTGCTCTTCTTCAAGCCAGCTGATACCTGTGCATACTGCAGGCATCTAAATTA GAAGACCTGCGAGTAAAACTGAAGAAAGAAGGATATTCTAATATTTCTTATATTGTTGTTAATCATCAA GGAATCTCTTCTCGATTAAAATACACACATCTTAAGAATAAGGTTTCAGAGCATATTCCTGTTTATCAA CAAGAAGAAAACCAAACAGATGTCTGGACTCTTTTAAATGGAAGCAAAGATGACTTCCTCATATATGAT GCCATTAAGATTGCTTACTGTGAAAAGAAATGTGGAAACTGCTCTCCACGACTCTCAAAGATGAAGAC TTTTGTAAACGTGTATCTTTGGCTACTGTGGATAAAACAGTTGAAACTCCATCGCCTCATTACCATCAT GAGCATCACCAATCATGGACATCAGCACCTTGGCAGCAGTGAGCTTTCAGAGAATCAGCAACCAGGA GCACCAAATGCTCCTACTCATCCTGCTCCTCCAGGCCTTCATCACCACCATAAGCACAAGGGTCAGCAT AGGCAGGGTCACCCAGAGAACCGAGATATGCCAGCAAGTGAAGATTTACAAGATTTACAAAAGAAGCTC TGTCGAAAGAGATGTATAAATCAATTACTCTGTAAATTGCCCACAGATTCAGAGTTGGCTCCTAGGAGC TGATGCTGCCATTGTCGACATCTGATATTTGAAAAAACAGGGTCTGCAATCACCTGACAGTGTAAAGAA AACCTCCCATCTTTATGTAGCTGACAGGGACTTCGGGCAGAGGAGAACATAACTGAATCTTGTCAGTGA CGTTTGCCTCCAGCTGCCTGACAAATAAGTCAGCAGCTTATACCCACAGAAGCCAGTGCCAGTTGACGC

TGAAAGAATCAGGCAAAAAAGTGAGAATGACCTTCAAACTAA

**ACGCGTACGCGGCCGCTC**GAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: Sgfl-Mlul



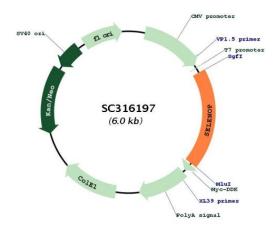
**OriGene Technologies, Inc.** 9620 Medical Center Drive, Ste 200

CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com



## Plasmid Map:



**ACCN:** NM\_001085486

**Insert Size:** 1146 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

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:** <u>NM 001085486.1</u>

RefSeq Size: 2193 bp RefSeq ORF: 1146 bp



## SEPP1 (SELENOP) (NM\_001085486) Human Untagged Clone - SC316197

 Locus ID:
 6414

 UniProt ID:
 P49908

 Cytogenetics:
 5p12

**Protein Families:** Secreted Protein

**MW:** 42.9 kDa

**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 human), 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. The use of alternative polyadenylation sites, one located in between the two SECIS elements, results in two populations of mRNAs containing either both (predominant) or just the upstream SECIS element (PMID:27881738). Alternatively spliced transcript variants have also been found for

this gene. [provided by RefSeq, Oct 2018]

Transcript Variant: This variant (2, also known as Sepp1c) contains an additional 5' non-coding exon, and thus has a different and longer 5' UTR compared to variant 1. Variants 1 and 2

encode the same isoform (1).