

Product datasheet for RC218097

SEPP1 (SELENOP) (NM_001085486) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SEPP1 (SELENOP) (NM_001085486) Human Tagged ORF Clone
Symbol:	SEPP1
Synonyms:	SELP; SeP; SEPP; SEPP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218097 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGAGAAGCCTGGGGCTTGCCTGGCTCTCTGTCTCCTCCCATCGGGAGGAACAGAGAGCCAGGACC
AAAGCTCCTTATGTAAGCAACCCCGAGCTGGAGCATAAGAGATCAAGATCCAATGCTAACTCCAATGG
TTCAGTGACTGTGGTTGCTCTTCTTCAAGCCAGCTGATACCTGTGCATACTGCAGGCATCTAAATTAGAA
GACCTGCGAGTAAAACGAAGAAAGAAGGATATTCTAATATTTCTTATATTGTTGTTAATCATCAAGGAA
TCTCTTCTCGATTAAAATACACACATCTTAAGAATAAGGTTTCAGAGCATATTCCTGTTTATCAACAAGA
AGAAAACCAAACAGATGTCTGGACTCTTTTAAATGGAAGCAAAGATGACTTCCTCATATATGATAGATGT
GGCCGTCTGTATATCATCTTGGTTTGCCTTTTTCTTCTAAGTTTCCCATATGTAGAAGAAGCCATTA
AGATTGCTTACTGTGAAAAGAAATGTGGAACTGCTCTCTCACGACTCTCAAAGATGAAGACTTTTGTA
ACGTGTATCTTTGGCTACTGTGGATAAAACAGTTGAACTCCATCGCCTCATTACCATCATGAGCATCAT
CACAATCATGGACATCAGCACCTTGGCAGCAGTGAGCTTTCAGAGAATCAGCAACCAGGAGCACCAAATG
CTCCTACTCATCCTGCTCCTCCAGGCCTTCATCACCACCATAAGCACAAGGGTCAGCATAGGCAGGGTCA
CCCAGAGAACCGAGATATGCCAGCAAGTGAAGATTTACAAGATTTACAAAAGAAGCTCTGTGAAAGAGA
TGTATAAATCAATTACTCTGTAATTTGCCACAGATTCAGAGTTGGCTCCTAGGAGCTGATGCTGCCATT
GTCGACATCTGATATTTGAAAAACAGGGTCTGCAATCACCTGACAGTGTAAAGAAAACCTCCCATCTTT
ATGTAGCTGACAGGGACTTCGGGCAGAGGAGAATAACTGAATCTTGTGAGTGCAGTGTGCTCCAGCT
GCCTGACAAAATAAGTCAGCAGCTTATACCCACAGAAGCCAGTGCCAGTTGACGCTGAAAGAATCAGGCAA
AAAAGTGAGAATGACCTTCAAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC218097 protein sequence
Red=Cloning site Green=Tags(s)

MWRSLLGLALALCLLPSGGTESQDQSSLCKQPPAWSIRDQDPLNSNGSVTVVALLQAS*YLCILQASKLE
 DLRVKLKKEGYSNISIYIVNHQGISSRLKYTHLKNKVSEHIPVYQQEENQTDVWTLNLSKDDFLIYDRC
 GRLVYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCSLTLTKDEDFCKRVSLATVDKTVETPSPHYHHEHH
 HNHGHQHLGSSELSNQPGAPNAPTHPAPPGLHHHHKHKHQHRQGHENRDMMPASEDLQDLQKKLCKRKR
 CINQLLCKLPTDSELAPRS*CCHCRHLIFEKTGSAIT*QCKENLPSLCS*QGLRAEENITESCQ*RLPPA
 A*QISQQLIPTEASAS*R*KNQAKK*E*PSN

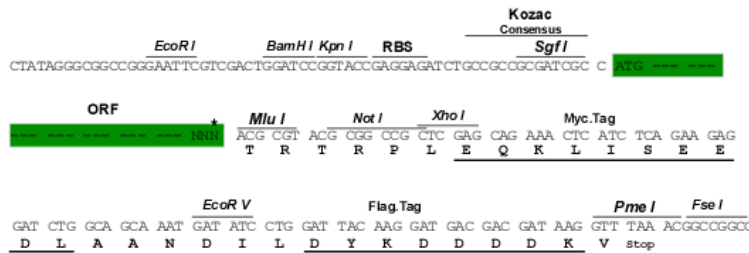
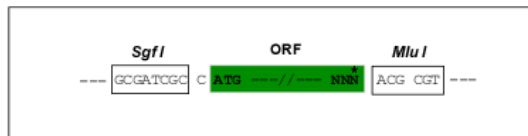
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6088_e08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001085486

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_001085486.2](#)

RefSeq Size: 2193 bp

RefSeq ORF: 1146 bp

Locus ID: 6414

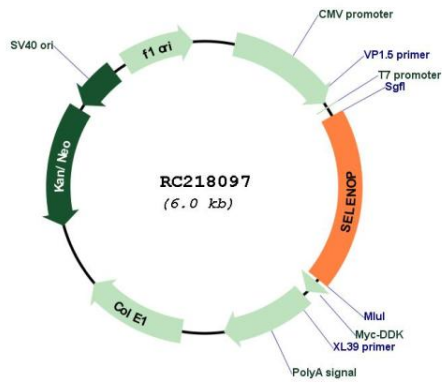
UniProt ID: [P49908](#)

Cytogenetics: 5p12

Protein Families: Secreted Protein

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]

Product images:



Circular map for RC218097