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Product datasheet for SC116747

SEPP1 (SELENOP) (NM_005410) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SEPP1 (SELENOP) (NM_005410) Human Untagged Clone
Symbol:	SEPP1
Synonyms:	SELP; SeP; SEPP; SEPP1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC116747 sequence for NM_005410 edited (data generated by NextGen Sequencing)

ATGTGGAGAAGCCTGGGGCTTGCCCTGGCTCTCTGTCTCCTCCCATCGGGAGGAACAGAG
AGCCAGGACCAAAGCTCCTTATGTAAGCAACCCCCAGCCTGGAGCATAAGAGATCAAGAT
CCAATGCTAAACTCCAATGGTTCAGTGACTGTGGTTGCTCTTCTTCAAGCCAGCTGATAC
CTGTGCATACTGCAGGCATCTAAATTAGAAGACCTGCGAGTAAAACTGAAGAAAGAAGGA
TATTCTAATATTTCTTATATTGTTGTTAATCATCAAGGAATCTCTTCTCGATTAAAATAC
ACACATCTTAAGAATAAGGTTTCAGAGCATATTCCTGTTTATCAACAAGAAGAAAACCAA
ACAGATGTCTGGACTCTTTTAAATGGAAGCAAAGATGACTTCCTCATATATGATAGATGT
GGCCGTCTTGTATATCATCTTGGTTTGCCTTTTTCCTTCCTAACTTTCCCATATGTAGAA
GAAGCCATTAAGATTGCTTACTGTGAAAAGAAATGTGGAAACTGCTCTCTCACGACTCTC
AAAGATGAAGACTTTTGTAAACGTGTATCTTTGGCTACTGTGGATAAAACAGTTGAAACT
CCATCGCCTCATTACCATCATGAGCATCATCACAATCATGGACATCAGCACCTTGGCAGC
AGTGAGCTTTCAGAGAATCAGCAACCAGGAGCACCAAATGCTCCTACTCATCCTGCTCCT
CCAGGCCTTCATCACCACCATAAGCACAAGGGTCAGCATAGGCAGGGTCACCCAGAGAAC
CGAGATATGCCAGCAAGTGAAGATTTACAAGATTTACAAAAGAAGCTCTGTCGAAAGAGA
TGTATAAATCAATTACTCTGTAAATTGCCCACAGATTCAGAGTTGGCTCCTAGGAGCTGA
TGCTGCCATTGTCGACATCTGATATTTGAAAAAACAGGGTCTGCAATCACCTGACAGTGT
AAAGAAAACCTCCCATCTTTATGTAGCTGACAGGGACTTCGGGCAGAGGAGAACATAACT
GAATCTTGTCAGTGACGTTTGCCTCCAGCTGCCTGACAAATAAGTCAGCAGCTTATACCC
ACAGAAGCCAGTGCCAGTTGACGCTGAAAGAATCAGGCAAAAAAGTGAGAATGACCTTCA
AACTAA

Clone variation with respect to NM_005410.2

View online »

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_005410 unedited
GATCTTGGGATTTTGTAATCCGACTTACTATAGGCGGCCGCGCAATTCGCACGAGGCCAG
AGTAAAGCAAANAGAAAGGAAGCAGGCCCGTTGGAAGTGGTTGTGACAACCCCAGCAATG
TGGAGAAGCCTGGGGCTTGCCCTGGCTCTCTGTCTCCTCCCATCGGGAGGAACAGAGAGC
CAGGACCAAAGCTCCTTATGTAAGCAACCCCCAGCCTGGAGCATAAGAGATCAAGATCCA
ATGCTAAACTCCAATGGTTCAGTGACTGTGGTTGCTCTTCTTCAAGCCAGCTGATACCTG
TGCATACTGCAGGCATCTAAATTAGAAGACCTGCGAGTAAAACTGAAGAAAGAAGGATAT
TCTAATATTTCTTATATTGTTGTTAATCATCAAGGAATCTCTTCTCGATTAAAATACACA
CATCTTAAGAATAAGGTTTCAGAGCATATTCCTGTTTATCAACAAGAAGAAAACCAAACA
GATGTCTGGACTCTTTTAAATGGAAGCAAAGATGACTTCCTCATATATGATAGATGTGGC
CGTCTTGTATATCATCTTGGTTTGCCTTTTTCCTTCCTAACTTTCCCATATGTAGAAGAA
GCCATTAAGATTGCTTACTGTGAAAAGAAATGTGGAAACTGCTCTCTCACGACTCTCANA
GATGAAGACTTTTGTAAACGTGTATCTTTGGCTACTGTGGATAAAACAGTTGANACTCCA
TCGCCTCATTACCATCATGAGCATCATCACAATCATGGACATCAGCACCTTGGCAGCAGT
GAGCTTTCAGAGAATCAGNCACCAGGAGCACCAAATGCTCCTACTCATCCTGCNTCTNCA
GGCCTTCATCACCACCATAAGCACAAGGGTCAGCATAGGCAGGGNTCACCCAGAGAACCG
AGATATGCCCCAGCAGTGAAGATTTACNNAGATTACAN

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_005410 unedited
TAGCTATGAACCCGCGGCCGCAATCTAGGATCGAGNNNTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTAAAGGGTTTTATTGAATTTATTTGGACAAATCCGTACTGTATCC
AATTCTGTACTGCATTCTTGCTTAAATAGTATTAACCATAAAGGAGGTCAGGTTTATAGG
GTTTGGTTTACCTATTAAACCATCATTGACTATGGAAATACTTACTAAGCATTATAGAGA
CAGACAATATTATCTTTCCCCTTATATCTTTTAAAACAGCCACTCAAGTTTTAAAAGAGT
ATGATACAACATTAGAGAAAGAAAGATACAAAGGCTTTATTCATGTGTGATAGTAAAAAT
CAGGATGAGTCTTAAATATACAAAAGATAAATGGATATTTAAAATAGTTATATATGCTTT
TTTAACAAAATATTCACGTGTTAAGTATTTCTGGATCTTAAAATACAAAATCCACTTATT
TTATTAGTTAAAAGCAAAAGATTGAAAAGACAAAGTAATATTGTTTTGAAAGATAAGTAA
AGAAAAAAAATGGAAAGCATGCCTTTGTTGTTCTTCCTCCCATTCTAAACTGCTAATTATC
CAACAGAAACCCCTAGGTCATAGTTTACGTTTCTATTCTCATTAAAGCAAATACAACACT
GGAAAAAGAAAAAAAAGACCTATTAACCAAAAGCTGCAATCACCTTTCAGTTGCTCCATC
ATAAAAAATATGGTTTGAGTCAATATTTCTATGACATAAAATTTAAAATCTCGAACCCCA
ATTAAGCAAATTTCTCCATGTTTGCACAAATCCTAANTTCTATTTTTGGCTCCACTAATT
GGCGAGTTTAAAAAAACGCCTGGAAATGAAAATGTGTCTACACTAAATGGCGGAGATGTT
CTATTTCAAAAATAAGGTTGGAAGCGCTTTCTAATTTTTTGGCTCGATCTTTCAGGGCAA
ATGCG

Restriction Sites: NotI-NotI

ACCN: NM_005410

Insert Size: 2080 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:	NM_005410.2, NP_005401.3
RefSeq Size:	2164 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] Transcript Variant: This variant (1, also known as Sepp1a) represents the predominant transcript and encodes isoform 1. Variants 1 and 2 encode the same isoform.