

Product datasheet for **SC320578**

Selenophosphate synthetase 2 (SEPHS2) (NM_012248) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Selenophosphate synthetase 2 (SEPHS2) (NM_012248) Human Untagged Clone
Symbol:	Selenophosphate synthetase 2
Synonyms:	SPS2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_012248.2
 GCCGTGGGTCTGACGGCTTGAGTAGCGCTAGGGAGAATCCCTGCAGGTAATTTGACTT
 TTGCTTCATATTAATCTGAGTGGAAAATAAAAGGGCCCTCTTCTCCTCTCGCTTCCCTGC
 CGGGCAGGCGCCATGGCGGAAGCCTCGGCGACGGGCGCCTGCGGAGAGGGCGATGGCAGCG
 GCGGAAGGCTCCTCGGGCCCGGGGCTTGACTCTGGGCCGGAGCTTCTCGAACTACCGG
 CCCTTCGAGCCCCAGGCGTTGGGCTCAGCCCGAGCTGGCGGCTGACGGGCTTCTCCGGC
 ATGAAGGGCTGAGGCTGCAAGGTCGCCAGGAGGCGCTGCTCAAACCTCTGGCGGGACTG
 ACGCGGCCGACGTGCGGCCCCCGCTGGGCCGGGCTGGTGGTGGCCAGGAAGAGGCG
 TCCCAGGAAGCCGGCCTGCCGGCAGGAGCGGGCCAGCCCCACCTTTCCAGCCCTGGGC
 ATCGGGATGGACTCCTGCGTCATCCCCCTGAGGCACGGGGCCTGTCACTGGTGCAGACC
 ACGGACTTCTTTACCCCTTGGTAGAAGATCCCTACATGATGGGGCGCATAGCTTGTGCC
 AACGTGCTGAGTGACCTTACGCCATGGGGATTACTGAGTGTGACAACATGTTGATGTTA
 CTCAGCGTCAGCCAGAGTATGAGTGAGGAGGAACGCGAAAAGGTAAACCCACTCATGGTC
 AAAGGCTTTCGGGATGCGGCTGAGGAAGGAGGGACGGCAGTGACCGGTGGGCAAACGGTG
 GTC AACCTTGGATTATAATCGGTGGAGTTGCCACTGTAGTATGCCAACCAAATGAGTTC
 ATAATGCCGACAGCGCGTCTGTTGGGGACGTGCTGGTGTAAACCAAACGTTAGGAACC
 CAGGTTGCTGTAATGCCACCAATGGCTGGATAATCCTGAAAGATGGAATAAAGTAAAG
 ATGGTGGTCTCCAGAGAAGAGGTGGAGCTGGCCTATCAGGAAGCCATGTTCAATATGGCT
 ACCCTCAACAGAACTGCTGCAGGTTTAAATGCACACATTTAATGCCATGCGGCCACAGAT
 ATCACAGGCTTTGGCATTCTAGGACACTCCCAGAACCTTGCAAAACAACAAGAAATGAA
 GTGTCCTTTGTTATTCATAATCTGCCAATAATTGCCAAGATGGCTGCCGTGAGCAAGGCC
 AGTGGACGGTTTGGGCTTCTTCAAGGAACCTCAGCTGAAACCTCTGGGGGATTACTGATT
 TGCTTGCCAAGAGAACAGGCGGCTCGCTTTTGTCTGAAATCAAATCCTCCAAGTACGGA
 GAGGGTACCAAGCGTGGATCGTTGGCATTGTGAAAAGGGAAACCGAACGGCCCGGATC
 ATTGACAAGCCGCGATTATTGAAGTCCTGCTCGTGGGGCCACAGCTGCTGTTCTTGCT
 CCTGACAGTTCAAATGCCTCCTCTGAGCCTAGCTCGTGAGATGAAAGAACAGAAGTTGTT
 TGGACCTTAGAGCCATTGTCCACAATCACGGATGGTTCTCAAGAGTTGATTGTAAGAAAT
 TTCCAAAGAAGGCTGCCTGCATAGTGGTCCGGCTGCCCTTCTAGGTGATTGGAATCAG
 CCCATCTAAAGCAGTCTTATATGCATTCGAGGCCAGAGTAACATTTTGAACCTTGGGG
 GGATATTTGTTCACTTGGTGAAGAGGAGCAAAAAACCTCTGTTTTCTCTTGCCA
 AAGTAAGATGAAGCTATCCAGGTTGAGGGATTTTCTTTGCACGGGTTGATTAATTTT
 TGCACAGGGAGTGAGATTATAAAGTAACACACACAAAAGTAAATTGCAAAATGAAAA
 AATTAGAAGCAAATGAGTTTTGGACCAATATTGTTGATAAATCTAAATTGTTAAGAGAGA
 TCTTATAATGCAACATCAAATCTTTATTCAATTTTACTGAAAGTACTGGCTCTTCTGCTG
 TCTGGACAAGAATTGAGCAACTGTCTGATGACTGGGAAAGGAGGACCTGCAACCATCTG
 ACTTGGTCTCTGTTAATGACGTCTCTCCCTCTAAACCCCATTAAGGACTGGGAGAGGCAG
 AGCAAGCTCAGAGCCCAGGCCTCAGTGGTCATTAAGATGTTAAGTCTTTTGGCGCAGAT
 TCCTGGTGATTTGATCAATAAAGAGTAATTTCTTGCTAAATAAAATAAAGAAACCTGTT
 GAAAACTAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_012248

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:	<ol style="list-style-type: none">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_012248.2 , NP_036380.2
RefSeq Size:	2291 bp
Locus ID:	22928
UniProt ID:	Q99611
Cytogenetics:	16p11.2
Domains:	AIRS
Protein Pathways:	Metabolic pathways, Selenoamino acid metabolism
Gene Summary:	This gene encodes an enzyme that catalyzes the production of monoselenophosphate (MSP) from selenide and ATP. MSP is the selenium donor required for synthesis of selenocysteine (Sec), which is co-translationally incorporated into selenoproteins at in-frame UGA codons that normally signal translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, the Sec insertion sequence (SECIS) element, which is necessary for the recognition of UGA as a Sec codon rather than as a stop signal. This protein is itself a selenoprotein containing a Sec residue at its active site, suggesting the existence of an autoregulatory mechanism. It is preferentially expressed in tissues implicated in the synthesis of selenoproteins and in sites of blood cell development. A pseudogene for this locus has been identified on chromosome 5. [provided by RefSeq, May 2017]