

Product datasheet for RC231162

Selenophosphate synthetase 1 (SEPHS1) (NM_001195604) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Selenophosphate synthetase 1 (SEPHS1) (NM_001195604) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Selenophosphate synthetase 1
Synonyms:	SELD; SPS; SPS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC231162 representing NM_001195604 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCTACGCGGGAGTCCTTTAACC CGGAAAGTTACGAATTGGACAAAAGCTTCCGGCTAACCAGATTCA
CTGAAGTGAAGGGCACAGGCTGCAAAGTGCCCAAGATGCTCTGCAAAAATTGCTGGAATCTTTACAGGA
GAACCACTTCCAAGAAGATGAGCAGTTTCTGGGAGCCGTATGCCAAGGCTTGGCATTGGAATGGATACT
TGTGTCATTCTTTGAGGCACGGTGGGCTTCTTGGTTCAAACACAGATTACATTTACCCGATCGTAG
ACGACCCTTACATGATGGGCAGGATAGCGTGTGCCAATGCCTCAGTGACCTCTATGCAATGGGGGTCAC
GGAATGTGACAATATGCTGATGCTCCTTGGAGTCAGTAATAAAAATGACCGACAGGAAAGGGATAAAGTG
ATGCCTCTGATTATCCAAGGTTTTAAAGACGCAGCTGAGGAAGCAGGAACATCTGTAACAGGCGGCCAAA
CAGTACTAAACCCCTGGATTGCTCTGGGAGGAGTGGCTACCAGTGTCTGCCAACCAATGAATTTATCAT
GCCAGACAATGCAGTGCCAGGGGACGTGCTGGTGTGACAAAACCCCTGGGGACACAGGTGGCAGTGGCT
GTGCACCAGTGGCTGGATATCCCTGAGAAATGGAATAAGATTAAGTAACTAGTGGTCAACCAAGAAGATGTAG
AGCTGGCCTACCAGGAGGCGATGATGAACATGGCGAGGCTCAACAGGACAGGCGCCTTCTGATCTGTTT
ACCACGTGAGCAAGCAGCTCGGTTCTGTGCAGAGATAAAGTCCCCAAAATATGGTGAAGGCCACCAAGCA
TGGATTATTGGGATTGTAGAGAAGGGCAACCGCACAGCCAGAATCATAGACAAAACCCCGGATCATCGAGG
TCGCACCACAAGTGCCCACTCAAATGTGAATCCACACCCGGGGCCACCTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC231162 representing NM_001195604
 Red=Cloning site Green=Tags(s)

MSTRESFNPESYELDKSFRLTRFTELKGTGCKVPQDVLQKLLSLQENHFQEDEQFLGAVMPRLGIGMDT
 CVIPLRHGGLSLVQTTDYIYPIVDDPYMMGRIACANVLSLYAMGVTECDNMLMLLGVSNKMTDRERDKV
 MPLIIQGFKDAEEAGTSVTGGQTVLNPWIVLGGVATTVCQPNFIMPDNAVPGDVLVLTPLGTQVAVA
 VHQWLDIPEKWNKIKLVVTQEDVELAYQEAMNMARLNRTGGLL ICLPREQAARFCAEIKSPKYGEGHQA
 WIIGIVEKGNRTARIIDKPRIIEVAPQVATQNVNPTPGATS

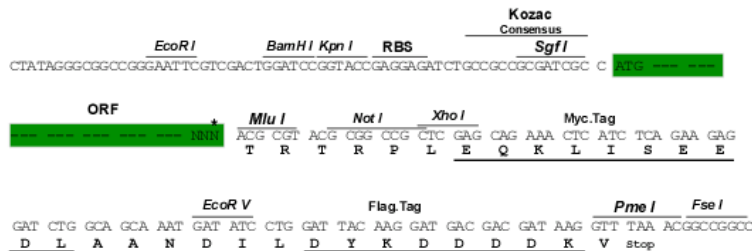
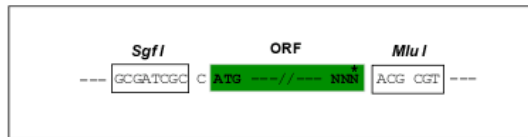
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8051_g03.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_001195604

ORF Size: 963 bp

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](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001195604.2](#)

RefSeq ORF: 966 bp

Locus ID: 22929

UniProt ID: [P49903](#)

Cytogenetics: 10p13

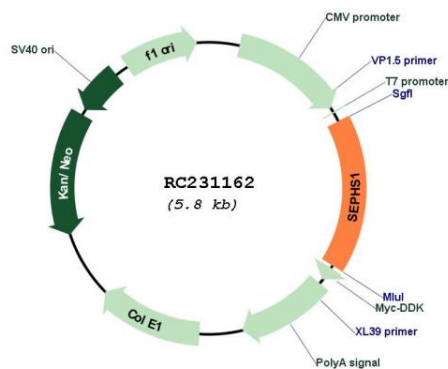
Protein Families: Stem cell - Pluripotency

Protein Pathways: Metabolic pathways, Selenoamino acid metabolism

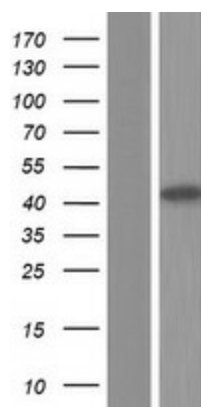
MW: 35.9 kDa

Gene Summary: This gene encodes an enzyme that synthesizes selenophosphate from selenide and ATP. Selenophosphate is the selenium donor used to synthesize selenocysteine, which is co-translationally incorporated into selenoproteins at in-frame UGA codons. [provided by RefSeq, Sep 2010]

Product images:



Circular map for RC231162



Western blot validation of overexpression lysate (Cat# [LY434161]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC231162 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).