

Product datasheet for RC208640

SFXN1 (NM_022754) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SFXN1 (NM_022754) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SFXN1
Synonyms:	SLC56A1; TCC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208640 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTCTGGAGAACTACCACCAACATTAACATCAAGGAACCTCGATGGGATCAAAGCACTTTCATTGGAC
GAGCCAATCATTCTTCACTGTAAGTACCCAGGAACATTCTGTTAACCAACGAACAACCGAGAGTGC
GAGAAAAATAGTACATGATTACAGGCAAGGAATTGTTCTCCTGGTCTTACAGAAAATGAATTGTGGAGA
GCAAAGTACATCTATGATTCAGCTTTTCATCCTGACACTGGTGAAGATGATTTTGATAGGAAGAATGT
CAGCCCAGGTTCCCATGAACATGACCATCACAGGTTGTATGATGACGTTTTACAGGACTACGCCGGCTGT
GCTGTTCTGGCAGTGGATTAACCAAGTCCCTCAATGCCGTCGTAATTACCAACAGAAGTGGAGACGCA
CCCCTCACTGTCAATGAGTTGGGAACAGCTTACGTTTTCTGCAACAACCTGGTGCCGTAGCAACAGCTCTAG
GACTCAATGCATTGACCAAGCATGTCTCACCCTGATAGGACGTTTTGTTCCCTTTGCTGCCGTAGCTGC
TGCTAATTGCATTAATATTCCATTAATGAGGCAAGGGAACCTCAAAGTTGGCATTCCCGTCACGGATGAG
AATGGGAACCGCTTGGGGAGTCGGCGAACGCTGCGAAACAAGCCATCACGCAAGTTGTCGTTGCCAGGA
TTCTCATGGCAGCCCCTGGCATGGCCATCCCTCCATTATTGAACACTTTGGAAAAGAAAGCCTTTTT
GAAGAGGTTCCCATGGATGAGTGCACCCATTCAAGTTGGGTTAGTTGGCTTCTGTTTGGTGTGGTGTACA
CCCCTGTGTTGTGCCCTGTTTCTCAGAAAAGTTCCATGTCTGTGACAAGCTTGGAGCCGAGTTGCAAG
CTAAGATCCAAGAGAGCCATCCTGAATTGCGACGCGTACTTCAATAAGGGATTG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC208640 protein sequence
Red=Cloning site Green=Tags(s)

MSGELPPNINIKEPRWDQSTFIGRANHFFVTDPNRILLTNEQLESARKIVHDYRQGIVPPGLTENELWR
 AKYIYDSAFHPDTGKEMILIGRMSAQVPMNMTITGCMFTFYRTTPAVLFWQWINQSFNAVVNYTNRSGDA
 PLTVNELGTAYVSATTGAVATALGLNALTKHVSPLIGRFVFAAVAAANCINIPLMRQRELKVGIPVTDE
 NGNRLGESANAAKQAITQVVSRILMAAPGMAIPPFIMNTLEKKAFLKRFPMWSAPIQVGLVGFCLVFAT
 PLLCCALFPQKSSMSVTSLEAELQAKIQESHPELRRVYFNKGL

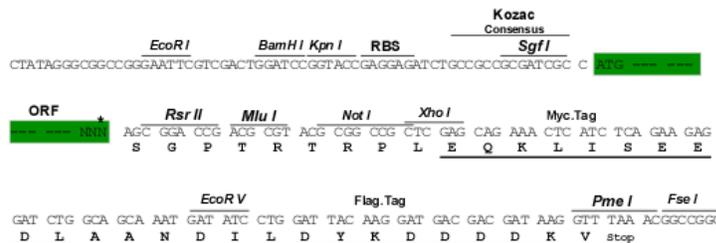
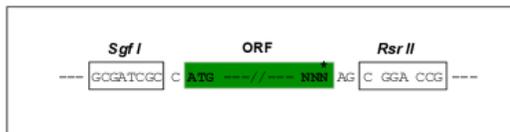
SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6183_c10.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_022754

ORF Size: 966 bp

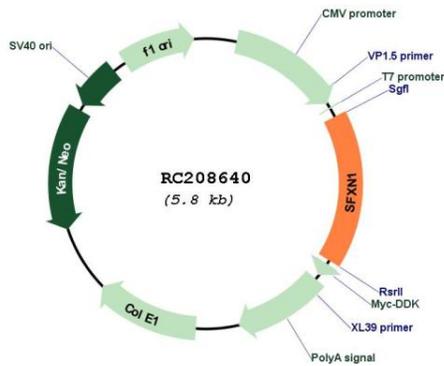
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

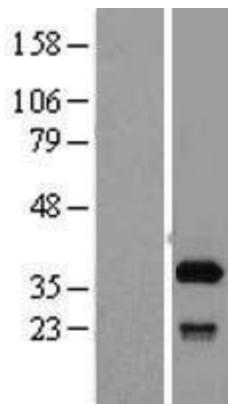
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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_022754.7
RefSeq Size:	2991 bp
RefSeq ORF:	969 bp
Locus ID:	94081
UniProt ID:	Q9H9B4
Cytogenetics:	5q35.2
Domains:	Mtc
Protein Families:	Transmembrane
MW:	35.6 kDa
Gene Summary:	<p>Mitochondrial serine transporter that mediates transport of serine into mitochondria, an important step of the one-carbon metabolism pathway (PubMed:30442778). Mitochondrial serine is converted to glycine and formate, which then exits to the cytosol where it is used to generate the charged folates that serve as one-carbon donors (PubMed:30442778). Transports both D-serine and L-serine (PubMed:30442778). Also able to transport other amino-acids, such as alanine (PubMed:30442778). May be indirectly involved in the transport of a component required for iron utilization into or out of the mitochondria (By similarity). [UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for RC208640



Western blot validation of overexpression lysate (Cat# [LY402936]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208640 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).