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Product datasheet for RC200974

SFXN3 (NM_030971) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SFXN3 (NM_030971) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SFXN3
Synonyms:	BA108L7.2; SFX3; SLC56A3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC200974 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAAGCAAAATGGGTGAATTGCCTTTAGACATCAACATCCAGGAACCTCGCTGGGACCAAAGTACTT
TCCTGGGCAGAGCCCGGCACTTTTTCACTGTTACTGATCCTCGAAATCTGCTGCTGTCCGGGGCACAGCT
GGAAGCTTCTCGGAACATCGTGCAGAACTACAGGGCCGGCGTGGTGACCCCAGGGATCACCGAGGACCAG
CTGTGGAGGGCCAAGTATGTGTATGACTCCGCCTTCCATCCGGACACAGGGGAGAAGGTGGTCCTGATTG
GCCGCATGTCAGCCCAGGTGCCCATGAACATGACCATCACTGGCTGCATGCTCACATTCTACAGGAAGAC
CCCAACCGTGGTGTTCTGGCAGTGGGTGAATCAGTCCTTCAATGCCATTGTTAACTACTCCAACCGCAGT
GGTGACACTCCCATCACTGTGAGGCAGCTGGGGACAGCCTATGTGAGTGCCACCACTGGAGCTGTGGCCA
CGGCCCTGGGACTCAAATCCCTCACCAAGCACCTGCCCCCCTTGGTCGGCAGATTTGTGCCCTTTGCAGC
AGTGGCAGCTGCCAACTGCATCAACATCCCCCTGATGAGGCAGAGAGAGCTGCAGGTGGGCATCCCGGTG
GCTGATGAGGCAGGTCAGAGGCTTGGCTACTCGGTGACTGCAGCCAAGCAGGGAATCTTCCAGGTGGTGA
TTTCAAGAATCTGCATGGCGATTCCTGCCATGGCCATCCCACCACTGATCATGGACACTCTGGAGAAGAA
AGACTTCCTGAAGCGCCGCCCCTGGCTGGGGGCACCCCTGCAGGTGGGACTGGTGGGCTTCTGCCTGGTA
TTTGCAACCCCCCTGTGCTGTGCCCTATTCCCCCAGAAGAGCTCCATACACATAAGCAACCTGGAACCAG
AGCTGAGAGCTCAGATCCATGAGCAAAACCCCAGCGTTGAAGTGGTCTACTACAACAAGGGGCTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC200974 protein sequence
Red=Cloning site Green=Tags(s)

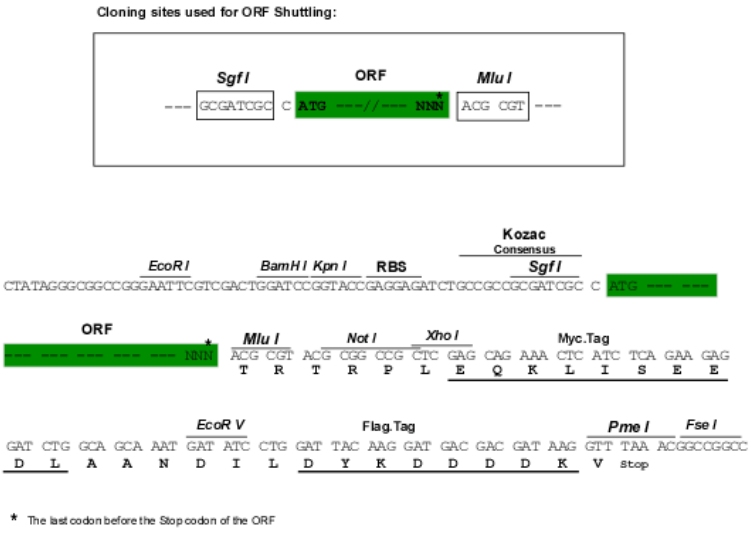
MESKMGELPLDINIQEPRWDQSTFLGRARHFFTVTDPRNLLLSGAQLEASRNIVQNYRAGVVTPGITEDQ
LWRAKYVYDSAFHPDTGEKVVLIGRMSAQVPMNMTITGCMLTFYRKTPTVVFWQWVNQSFNAIVNYSNRS
GDTPITVRQLGTAYVSATTGAVATALGLKSLTKHLPPLVGRFVPFAAVAAANCINIPLMRQRELQVGIPV
ADEAGQRLGYSVTAAKQGIFQVVISRICMAIPAMAIPPLIMDTLEKKDFLKRRPWLGAPLQVGLVGFCLV
FATPLCCALFPQKSSIHISNLEPELRAQIHEQNPSVEVVYYNKGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6388_e12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_030971

ORF Size: 975 bp

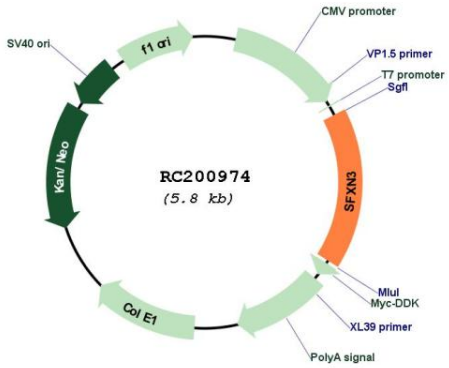
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

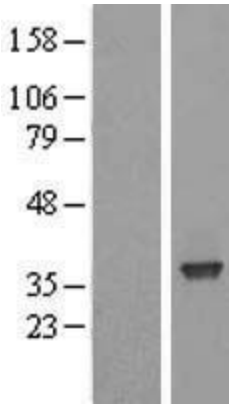
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_030971.3, NP_112233.2
RefSeq Size:	3129 bp
RefSeq ORF:	978 bp
Locus ID:	81855
UniProt ID:	Q9BWM7
Cytogenetics:	10q24.31
Domains:	Mtc
Protein Families:	Transmembrane
MW:	36 kDa
Gene Summary:	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). [UniProtKB/Swiss-Prot Function]

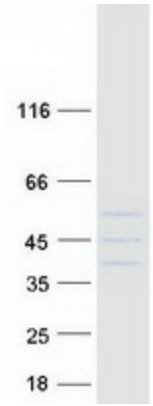
Product images:



Circular map for RC200974



Western blot validation of overexpression lysate (Cat# [LY410634]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200974 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SFXN3 protein (Cat# [TP300974]). The protein was produced from HEK293T cells transfected with SFXN3 cDNA clone (Cat# RC200974) using MegaTran 2.0 (Cat# [TT210002]).