

Product datasheet for **SC322710**

NFS1 (NM_021100) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NFS1 (NM_021100) Human Untagged Clone
Tag:	Tag Free
Symbol:	NFS1
Synonyms:	COXPD52; HUSSY-08; IscS; NIFS
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 SC322710
 GGGCCCAGGACTGCAGCGGCTTCGGAAGGTGGGCTCTGCCAGCGGGACCATGCTGCTCCG
 AGCCGCTTGGAGGCGGGCGGCAGTGGCGGTGACAGCGGCTCCAGGGCCGAAGCCCAGCGG
 GCCCACTCGGGGGCTGCGCTGCGCGTTGGAGACCGTGTCTCCTCAGTCTGCGGTTCCCGC
 AGATACAGCCGCTGCCCCGGAGGTGGGGCCAGTGTGCGACCTCTCTATATGGATGTGCA
 AGCTACAACCTCTTGACCCCCGGGTGCTTGATGCCATGTCCCTTACCTAATTAATACTA
 CTATGGGAACCCACACTCCCGGACACATGCTTATGGCTGGGAGAGTGAGGCAGCCATGGA
 ACGTGCTCGTCAGCAAGTAGCATCTCTGATTGGAGCTGATCCTCGTGAGATCATTITTTAC
 TAGTGGTGCTACTGAATCCAACAACATAGCAATTAAGGGGGTGGCCCGATTCTACAGGTC
 ACGGAAAAAGCACTTGATCACCACCCAGACAGAACACAAATGTGTCTTGGACTCCTGCCG
 TTCCTGGAAGCTGAGGGCTTTCAGGTCACCTACCTCCAGTGCAGAAGAGTGGGATCAT
 TGACCTAAAGGAAGTAGAGGCTGCTATCCAGCCAGATACTAGCCTGGTGTGAGTGTGAGC
 TGTGAACAATGAGATTGGAGTGAAGCAGCCTATTGCAGAAATAGGGCGGATTTGCAGTTC
 CAGAAAGGTATATTTCCATACTGATGCAGCCAGGCTGTTGAAAAATCCCACTTGATGT
 CAATGACATGAAAATTGATCTCATGAGCATTAGTGGTCACAAAATCTACGGTCCCAAAGG
 GGTGGTGCCATCTACATCCGTCGCCGGCCCCGTGTGCGTGTGGAGGCCCTGCAGAGTGG
 AGGGGGGAGGAGCGGGGTATGCGGTCTGGGACAGTGCCACACCCTTAGTGGTGGGGCT
 GGGGGCTGCGTGTGAGGTGGCACAGCAAGAGATGGAGTATGACCACAAGCGAATCTCAA
 GTTGTGAGAGCGGCTGATACAGAATAAATGAAGAGCCTTCCAGATGTGGTGTGAAATGG
 GGACCCTAAGCACCATTATCCCGGCTGTATCAACCTCTCCTTTGCATATGTGGAAGGGGA
 AAGTCTGCTGATGGCACTGAAGGACGTTGCCTTATCCTCAGGGAGTGCCTGCACCTCTGC
 ATCCCTGGAGCCCTTTATGTGCTTAGAGCAATTGGCACTGATGAGGATTTAGCGCACTC
 TTCTATCAGGTTTGAATTGGCCGCTTCACTACAGAGGAGGAAGTGGACTACACAGTGGG
 GAAATGCATTGAGCATGTGAAGCGTCTTCGAGAAATGAGCCCTCTCTGGGAGATGGTTCA
 GGATGGCATTGACCTCAAGAGCATCAAGTGGACCAACACTAGAAGAATAGGGCCCTGAC
 TTTGTGCTGGTCTGGCCCTCCTGCCTACCAACCCGTGCACAACCAGACACCTTGTAC
 ACCTAGTGGATGCTCTAGATTGGTATAGACCAGTTGACTTCAGCATCAGTCCACCTCTAT
 GACAGAAACACAAGAAAAGTGTCTTTCCCTAGCTTCACTTCTTTGGGTGTGGAGCACTCC
 CCATTTCTTCTCGGTCTTAAAGTGTGTGGACATTTTCATCCCGAAGCCATAGAGACATT
 TGCTGTATATTGCTGCTGGGCACATCTGTGCTTGGTGGAGAGCAAGAGGAACCAG
 AAGAAGTCTCTTTGGTCAGGGACCATGATGCTCTACATGGACATTTGAGTCTTCGTCTTC
 TGCTGCTGCTCGGCTGGACCAGCTTCTTAAACAGCAAGCATAATCCACTCAATGTAATA
 TTTTCTGTAGCTCAAAGGCTATCTCTTCAATTTGACTGCAGACAGACTGAATGGACAGT
 TTCTTAGAGGGCTTGTCTCCTTTCTACCCTTGTCTCTTTCTTTCTTTGACCTAATGG
 AGCTAGAAATATGTCTGTGACTCCACCAGTTATTCTAATAATTTGTTTTCTTGAAAATTG
 TTAATTTCAAGACTGGAGAAATAAACTCACCTTCTATTTAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_021100

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_021100.3](#), [NP_066923.3](#)

RefSeq Size: 2371 bp

RefSeq ORF: 1374 bp

Locus ID: 9054

UniProt ID: [Q9Y697](#)

Cytogenetics: 20q11.22

Domains: aminotran_5

Protein Pathways: Thiamine metabolism

Gene Summary:

Iron-sulfur clusters are required for the function of many cellular enzymes. The proteins encoded by this gene supply inorganic sulfur to these clusters by removing the sulfur from cysteine, creating alanine in the process. This gene uses alternate in-frame translation initiation sites to generate mitochondrial forms and cytoplasmic/nuclear forms. Selection of the alternative initiation sites is determined by the cytosolic pH. The encoded proteins belong to the class-V family of pyridoxal phosphate-dependent aminotransferases. Alternatively spliced transcript variants have been described. [provided by RefSeq, Nov 2010]
Transcript Variant: This variant (1) encodes the longer isoform (a).