

Product datasheet for **SC100467**

VAR2 (NM_020442) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VAR2 (NM_020442) Human Untagged Clone
Tag:	Tag Free
Symbol:	VAR2
Synonyms:	COXPD20; VALRS; VAR2L; VARSL
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_020442, the custom clone sequence may differ by one or more nucleotides

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ATGCCTCATTGCGCTCTCGCCTCTTTTCGACCACCATTTGGGGGCTGAGGCACTCACGGGGCTCCCCA
GGTTTCACTCCGTTTCTACACAGTCGGAGCCCCATGGATCTCCCATCTCCCGGAGGAACCGTGAAGCCAA
ACAGAAGCGCCTGCGAGAGAAGCAGCGACTCTGGAGGCTGAGATAGCAGGGGAGAGCAAGTCACCTGCA
GAATCCATTAAGGCCTGGAGGCCTAAGGAGTTAGTATTGTATGAAATCCCTACGAAACCCGGTGAAGA
AAGATGTCTCTGGGCCCTGCTCCTGCATACAGCCCCGATATGTTGAGGCTGCTGGTACCCGTGGTG
GGTACGAGAGGGCTTCTCAAACCAAGATATCAGGCCGGCTGCCCAAGCTACAGGGGAGACCTTTTCC
ATGTGTATCCCACCTCCAATGTCACCTGCTCCCTGCACATTGGCCACGCACTCACGGTGGCCATACAGG
ATGCCCTCGTGCCTGGCACCAGGATGCGTGGGGATCAAGTGTGTGGTCCCTGGTTCAGATCATGCAGG
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CGGGAGGCCTTCCCTTAGGAGGTGTGGCAGTGAAGGAGGCGAAAGGTGGAGAGATCTGTGAGCAGCTGC
GAGCTCTGGGTGCTCCCTGGACTGGGATCGAGAGTGTTCACCATGGATGTTGGCTCCTCAGTGGCTGT
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TGTGCTTAAAGATCAGCCATCTCGGACATTGAGGTGGAGAACCGGCCCTGCCTGGCCACACACAGCTTC
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GCCTGATGCAGAGGTTGTGGTAGGAACCAAGGCCAGAGACGCTGCCTGGAGATGTGGCTGTGGCCGT
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TCCCCCTCATCACAGACTATGCTGTTAGCCACATGTGGGCACGGGGCAGTGAAGGTGACTCCAGCTCA
CAGTCTGCCGATGCTGAGATGGGGGCCGACATGGCTGAGCCCTTGAATGTCATTGCGGAGGATGGG
ACCATGACTCCCTCTGCGGGGACTGGCTGCAGGGTCTTACCGGTTTGTGGCCGGAAAAGATAATGT
CTGTGTGAGTGAATGGGGCCTGTTCCGGGGCTCCAGAACCACCCCATGGTACTGCCCATCTGCAGCCG
TTCTGGGGATGTGATAGAATACCTGCTGAAGAACCAGTGGTTTGTCCGCTGCCAGGAAATGGGGCCCGA
GCTGCCAAGGCTGTGGAGTCGGGGGCCCTGGAGCTCAGTCCCTCCTTCCACCAGAAGAACTGGCAGCACT
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TCGTTTCTACCCCTGTCACTTTTGAACCGGCAGCAGCCTTCTGCTGTTCTGGGTGGGCCGATGGTC
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GCACAGAAAAAGGACTTTCTCACGGGATCCCTGAGTGTGGGACAGATGCCCTGAGATTCACACTGTCT
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GAGCTGTCTCCCTCCTCCCGATGGATGCCTGGATCCTGAGCCGCTTCCCTGGCTGCCAGGAGTGTG
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CGCCTGCAGCTTGGAGCACTGGCGCCAGCCAGAGCTGGAGCGGCGCTTCTCCCGGTCCAAGAGGTCGTG
CAGGTGCTAAGGGCTCTCCGAGCCAGTACCAGCTCACAAAGCCCGGCCCGAGTGTGCTGCAGAGCT
CAGAGCCTGGGGACCAGGCCTCTCGAGGCCTTCTGGAGCCCTGGGCACCCTGGGCTACTGTGGGGC
TGTGGGCTGTTACCCCAAGCGCAGCAGCTCCCTCCGGTGGGCCAGGCTCCACTCAGTGACACGGCT
CAAGTCTACATGGAGCTGCAGGGCTGGTGGACCCGAGATCCAGCTACCTCTGTTAGCCGCCCCAAGGT
ACAAGTTGCAGAAGCAGCTTACAGCCTCACAGCCAGGACCCATCAGAAGGGGAGGCAGGGACTCAGAG
GCAACAAAAGCTTTCTCCCTCCAGCTGGAATTGTCAAACTGGACAAGGCAGCCTCTCACCTCCGGCAG
CTGATGGATGAGCCTCCAGCCCCAGGGAGCCGGAGCTCTAA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_020442 unedited
 GGTGTTCAAAATTTGTATACGACTCATATAGGCGGCCGCGAAATTCGCACGAGGCACCCC
 CGTGTCTTTTGGCCTCCTATTTTCTGTTGCCTTCCCCGTGGATGGAGAGCCTGATGCAGA
 GTTTGTGGTAGGAACCACAAGGCCAGAGACGCTGCCTGGAGATGTGGCTGTGGCCGTTCA
 TCCAGACGACTCGCGATACACACATCTACACGGGCGACAGCTTCGTCACCCCTTGATGGG
 GCAGCCTCTTCCCTCATCACAGACTATGCTGTTTCCAGCCACATGTGGGCACGGGGCAGT
 GAAGTGACTCCAGCTCACAGTCTGCCGATGCTGAGATGGGGGCCGACATGGCTTGAG
 CCCCTTGAATGTATTGCGGAGGATGGGACCATGACCTCTCTGCGGGGACTGGCTGCA
 GGGTCTTACCGTTTTGTGGCCCGGAAAAGATAATGTCTGTGCTGAGTGAACGGGGCCT
 GTTCCGGGGCCTCCAGAACCACCCCATGGTACTGCCATCTGCAGCCGTTCTGGGATGT
 GATAGAATACCTGCTGAAGAACCAGTGGTTTGTCCGCTGCCAGGAAATGGGGGCCGAGC
 TGCCAAGGCTGTGGAGTCGGGGCCCTGGAGCTCAGTCCCTCCTCCACCAGAAGAAGT
 GCAGCACTGGTTTTCCATATTGGGACTGGTGTGTCTCCCGCAGCTGTGGTGGGGCCA
 TCAGATTCCAGCCTACCTGGTTGTAGAAGACCATGCGCAGGGAGAGAAGACTGTTGGGTG
 GTCGGGGCGTCAAAGGCTGATGCCANATAAGTANCANCNGAACTGACAGGGGAGCCAAGG
 GCANAGCTGACCCTGNAAGGGATTCTGATGTNCTAACACATTGTTTCTTCTGGCCTGT
 TTCTTTTTTTGCCTGGGCT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_020442 unedited
 TTCNANGATCGGATTTTTTTTTTTTTTTTTTTTTTTGGGGATTCAAATTTACTCATCTCCTCTT
 GGGGACTTCCAGTGGGAGGCAAGCCGGCAGTAATGTGAGCATCTCAAGGACACCACAG
 TCACTGCGACCAAGCCAGTCTGTGTCCTATTTACACAATGAAGGCGATGGACCACATAG
 TCTCTGAGCTCCACTGCACCCTGACAGCTGACAAAGGGGGGGTCTCAAAAACAGGTC
 TGAGAGGGAGGAAAAGTATGGGGATGATGAGTTAAAGCTCCGGGCTCCCTGGGGCTGGA
 GGCTCATCCATCAACTGCCGGAGGTGAAAGGCTGCCTTGTCCAGTTTTGACAATCCAGC
 TGGAGGGAAAAAGCTTTTGTTCCTCTGAGTCCCTGCCTCCCCTTCTGATGGGGTCTG
 GCTGTGAGGCTATCAAGCTGCTTCTGCAACTTGTACCTTCGGGCGGCTAACAGAGGTAGC
 TGGATCTCGGGTCCACCAGGCCCTGCAGCTCCATGTAGACTTGAGCCGTGCTCACTGAGT
 GGAGCCTGGGCCAGCCGAGGGAGCTGCTGCGCTGGGGTAACAGGCCACAGCCCCA
 CAGTAGCCAGGGTCCCCAGGGCTCCAAGAAGGCTCGAAGAGGCCCTGGTCCCCAAGC
 TCTGAGCTCTGCAGCANCACTCGGGGCCGGCTTTGGTGTGAGCTGGTACCTGGCTTGAGA
 GCCCTTAGCACCTGGACGACCTTTGGGACCCGGGAGAAGCGCCGCTCCACCTCTGGCT
 GGCCCCCTGGCTCCAAGCTGGCAGCGCTGGGGTAGGGGGAACCGGA

Restriction Sites:

NotI-NotI

ACCN:

NM_020442

Insert Size:

2750 bp

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).

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_020442.2 , NP_065175.2
RefSeq Size:	3625 bp
RefSeq ORF:	1506 bp
Locus ID:	57176
UniProt ID:	Q5ST30
Cytogenetics:	6p21.33
Domains:	tRNA-synt_1
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Aminoacyl-tRNA biosynthesis, Valine, leucine and isoleucine biosynthesis
Gene Summary:	<p>This gene encodes a mitochondrial aminoacyl-tRNA synthetase, which catalyzes the attachment of valine to tRNA(Val) for mitochondrial translation. Mutations in this gene cause combined oxidative phosphorylation deficiency-20, and are also associated with early-onset mitochondrial encephalopathies. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Aug 2014]</p> <p>Transcript Variant: This variant (2) contains alternate 5' exon structure, and it thus differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream in-frame start codon, compared to variant 1. The encoded isoform (2) is shorter at the N-terminus, compared to isoform 1.</p>