

Product datasheet for **SC318474**

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:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC318474 representing NM_020442. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTGTGAACCGTCAGAATTTGTAAACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCCTCATTGCTCTCGCCTCTTTTCGACCACCATTTGGGGCTGAGGCACTCACGGGGCTCCCC
AGGTTTCACTCCGTTTCTACACAGTCGGAGCCCCATGGATCTCCCATCTCCCGGAGGAACCGTGAAGCC
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GCCCGGAAAAGATAATGTCTGTGCTGAGTGAACGGGGCTGTTCCGGGGCTCCAGAACCACCCCATG
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CACCAGAAGAAGCTGGCAGCACTGGTTTTCCCATATTGGGGACTGGTGTGTCTCCCGGCAGCTGTGGTGG
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 CTGTGGCACTCGCCCGCCCCCTGGGGCCCCCTCAGGTCTGTTCTCCTGCGCTGACCTCGGCTCCGC
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 GAGCTGGAGCGCGCTTCTCCGGGTCCAAGAGGTGCTGCAGGTGCTAAGGGCTCTCCAAGCCACGTAC
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 GCCTTCTTGAGCCCTGGGCACCCTGGGCTACTGTGGGGCTGTGGGCTGTTACCCCAAGGCGCAGCA
 GCTCCCTCCGGCTGGGCCAGGCTCCACTCAGTGACACGGCTCAAGTCTACATGGAGCTGCAGGGCTG
 GTGGACCCGAGATCCAGCTACCTCTGTTAGCCGCCGAAGGTACAAGTTGCAGAAGCAGCTTGTAGC
 CTCACAGCCAGGACCCATCAGAAGGGGAGGCAGGACTCAGAGGCAACAAAAGCTTTCTCCCTCCAG
 CTGGAATTGTCAAAGTGGACAAGGCAGCCTCTCACCTCCGGCAGCTGATGGATGAGCCTCCAGCCCCA
 GGGAGCCCGAGCTCTAA
 ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

- Restriction Sites:** Sgfl-MluI
- ACCN:** NM_020442
- Insert Size:** 3192 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).
- 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:	<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_020442.3
RefSeq Size:	3622 bp
RefSeq ORF:	3192 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
MW:	118.4 kDa
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>