

## Product datasheet for **SC120671**

### CDS2 (NM\_003818) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CDS2 (NM_003818) Human Untagged Clone
Tag:	Tag Free
Symbol:	CDS2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC120671 sequence for NM_003818 edited (data generated by NextGen Sequencing)

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ATGACAGAGCTGAGGCAGAGGGTGGCCCATGAGCCGGTTGCGCCACCCGAGGACAAGGAG
TCAGAGTCAGAAGCAAAGGTAGATGGAGAGACTGCATCGGACAGTGAGAGCCGGGCAGAA
TCCGCACCCCTGCCAGTCTCTGCAGATGATACCCCGGAGGTCTCAATAGGGCCCTTTCC
AACTTGTCTTCAAGATGGAAGAACTGGTGGGTGAGAGGCATCCTGACTTTGGCCATGATT
GCATTTTTCTTCATCATCATTTACCTGGGACCAATGGTTTTGATGATAATCGTGATGTGC
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GATCTGCCCTGGTTCAGGACGCTCAGCTGGTACTTTCTCTGTGTGTAACCTATTTCTTC
TATGGTGAGACAGTGACGGATTACTTCTCACCCCTGGTCCAGAGAGAAGAGCCTTTGCGG
ATTCTCAGTAAATACCACCGTTTCATTTCTTTACTCTCTATCTAATAGGATTCTGCATG
TTTGTACTGAGTCTGGTCAAGAAGCATTATCGACTGCAGTTCTACATGTTTGGCTGGACC
CATGTGACATTGCTGATTGTTGTAACACAGTCACATCTTGTTATCCACAACCTATTTGAA
GGAATGATCTGGTTCATTGTCCCATATCTTGTGTGATCTGTAATGACATCATGGCCTAT
ATGTTTGGCTTTTTCTTTGGTCGGACCCCACTCATCAAGCTGTCCCGAAGAAGACCTGG
GAAGGCTTCAATGGGGCTTCTTTGCTACTGTGGTGTGGCCTTCTGCTGCCTATGTG
ATGTCCGGGTACAGATGCTTTGCTGCCCTGTGGAGTACAACAATGACACCAACAGCTTC
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GCTCTCTCCACCTTTGCCTCGCTCATTGGCCCCTTTGGAGGATTCTTCGCAAGTGGATTC
AAACGAGCCTTTAAAATCAAAGACTTTGCCAATACCATTCTGGCCATGGAGGCATCATG
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ATCAGAGGCCCTAACCAAGCAAAGTATTGAGGATTCAGGATTCCTGACTTTACGGCCAGATCAG
CAGCTCCACATCTTCAACACGCTGCGGTCTCATCTGATCGACAAAAGGGATGCTGACATCC
ACCACAGAGGACGAGTAG

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Clone variation with respect to NM\_003818.3



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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_003818 unedited</p> <pre> NGGTCACCTTTGTATACGACTCCTATAGGGCGGCCGCAATTCGCACGAGGCTGGGCTGC TAAGGGAAGTGTGAGCCGCTCAGAGCCGCGCCCTCCCGGGCGGGGCGGGCCGGCCGTG GGAGTCCGCGCGTGCCCGCGCCGAGCTGCCTGCTCCGCGGGCTTCGCTGCTAGCTCGCGG CGACGTCGGGCGGATTTTCCCAGGATGACAGAGCTGAGGCAGAGGGTGGCCCATGAGCCG GTTGCGCCACCCGAGGACAAGGAGTCAGAGTCAGAAGCAAAGGTAGATGGAGAGACTGCA TCGGACAGTGAGAGCCGGCAGAATCCGCACCCCTGCCAGTCTCTGCAGATGATACCCCG GAGGTCCTCAATAGGGCCCTTTCCAACCTGTCTTCAAGATGGAAGAACTGGTGGGTGAGA GGCATCCTGACTTTGGCCATGATTGCATTTTTCTTCATCATCATTTTACCTGGGACCAATG GTTTTGATGATAATCGTGATGTGCGTTCAGATTAAGTGTTTCCATGAGATAATCACTATT GGCTACAACGCTACCACTCATATGATCTGCCCTGGTTCAGGACGCTCAGCTGGTACTTT CTCCTGTGTGTAAGTATTTCTTCTATGGTGAGACAGTGACGGTACTTCTTACCCTG GTCCAGAGAGAAGAGCCTTTGCGGATTCTCAGTAAATACCACCGTTCATTTCTTTACT CTCTATCTAATAGGATTTCGATGTTTGTACTGAGTCTGGTCAAGAAGCATTATCGACTG CAGTTCTACATGTTTGGGCTGGACCCATGTGACATTGCTGATTGGTGAACACAGTCACA TCTTGTTATCCACAACCTATTTGAAGGAATGATCTGGNTCATTGTCCCATATCTTGTGTG ATCTGTAATGACATCATGCNCCTATATGTTG </pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_003818 unedited</p> <pre> NNTTTTCGCTCTGGACCCGCGGCCGCATNCTAGGATCGAGTTTTTTTTTTTTTTTTTTTAC ACATTATATAAAAGTGTGCATTTAATCTTCAAAATAGTCAAGGCTCTAATCAGGTTAGGT TTTCCATAGTTTTAAGCAGGACTTTGTGGTTTTAGTGAAGAAGTCATGGTGCAATTGAAA TCACTGTAAGAAAATAAGTGACTTTTTAAAACAAACACAGACACACACTCCTCTTAAGAG TAATATATACACAACACAGCAGCTACATGGGTGTTGAGGCAAGGGTGCATGAACGAGAA GCCCTCTGCTCCCTGCCCGATGAGAAAAGTCCCCAGAAAGGATTCAGCAGCAGCAAGTCTA CAGCACAAACATGGATGGCATTGTCCTGAAAACACACAGTTAGTGGACCTACAGGAGA CATTGGAGCCTAGACATGTGGGAAAGGGCTCAGTTACAGTACATTCTACTGCATACACTT GAAATATTACAGTGTGTTTTTCTCCAGACTATTATAAAATAATTTTTCTGCTTTCTGAA AAAAATAAAACTGAACTTTTCAGTCTGCGATGAAGGTGAACCCATCTTATAAAGCAGAG CTTACTTACATTCTGCAGGATTTTGGTGTGGATGCATAGAAGGCTTACCTGGTTAGTAAG CCTCCATTCTCCGACCTACAGAAGGCAACCCTTCTGCAGCTCCAAGCAGGGATTTCTAG AAAAGACCAGGTGTACAAAACATCTAAGCTGTGCCCTCCACCCACAGTGGGGAAGTCCCC TGATTGGTCAGACCAGATGATGTCTGTGCTGACTGACCCCAAAACAGTTCATTTGTGGG GGCTGGAACCAACAAAAACCTTCTGACCTGGGCAACATTGCTTCCAATATTATACTTT TGTA </pre>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_003818
<b>Insert Size:</b>	2770 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_003818.2, NP_003809.1</u>
<b>RefSeq Size:</b>	2711 bp
<b>RefSeq ORF:</b>	1338 bp
<b>Locus ID:</b>	8760
<b>UniProt ID:</b>	<u>O95674</u>
<b>Cytogenetics:</b>	20p12.3
<b>Domains:</b>	CTP_transf_1
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Glycerophospholipid metabolism, Metabolic pathways, Phosphatidylinositol signaling system
<b>Gene Summary:</b>	Breakdown products of phosphoinositides are ubiquitous second messengers that function downstream of many G protein-coupled receptors and tyrosine kinases regulating cell growth, calcium metabolism, and protein kinase C activity. This gene encodes an enzyme which regulates the amount of phosphatidylinositol available for signaling by catalyzing the conversion of phosphatidic acid to CDP-diacylglycerol. This enzyme is an integral membrane protein localized to two subcellular domains, the matrix side of the inner mitochondrial membrane where it is thought to be involved in the synthesis of phosphatidylglycerol and cardiolipin and the cytoplasmic side of the endoplasmic reticulum where it functions in phosphatidylinositol biosynthesis. Two genes encoding this enzyme have been identified in humans, one mapping to human chromosome 4q21 and a second to 20p13. [provided by RefSeq, Jul 2008]