

## Product datasheet for **SC117714**

### SUCLA2 (NM\_003850) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SUCLA2 (NM_003850) Human Untagged Clone
Tag:	Tag Free
Symbol:	SUCLA2
Synonyms:	A-BETA; A-SCS; LINC00444; MTDPS5; SCS-betaA
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**Fully Sequenced ORF:** >OriGene ORF within SC117714 sequence for NM\_003850 edited (data generated by NextGen Sequencing)

```

ATGGCGGCCTCCATGTTCTACGGCAGGCTAGTGGCCGTGGCCACCCTTCGGAACCACCGG
CCTCGGACGGCCAGCGGGCTGCTGCTCAGGTTCTGGGAAGTTCTGGATTGTTTAATAAC
CATGGACTCCAAGTACAGCAGCAACAGCAAAGGAATCTCTCACTACATGAATACATGAGT
ATGGAATTATTGCAAGAAGCTGGTGTCTCCGTTCCCAAAGGATATGTGGCAAAGTCACCA
GATGAAGCTTATGCAATTGCCAAAAAATTAGGTTCAAAGATGTCGTGATAAAGGCACAG
GTTTTAGCTGGTGGTAGAGGAAAAGGAACATTTGAAAGTGGCCTCAAAGGAGGAGTGAAG
ATAGTTTTCTCTCCAGAAGAAGCAAAAGCTGTTTCTTCAAAATGATTGGGAAAAAATTG
TTTACCAAGCAAACGGGAGAAAAGGGCAGAATATGCAATCAAGTATTGGTCTGTGAGCGA
AAATATCCAGGAGAGAAATACTACTTTGCAATAACAATGGAAAGGTCATTTCAAGTCTCT
GTATTAATAGGAAGTTCACATGGTGGTGTCAACATTGAAGATGTTGCTGCTGAGACTCCT
GAAGCAATAATTAAGAACCTATTGATATTGAAGAAGGCATCAAAGGAACAAGCTCTC
CAGCTTGACAGAAAGATGGGATTTCCACCTAATATTGTGGAATCAGCAGCAGAAAACATG
GTCAAGCTTTACAGCCTTTTTCTGAAATACGATGCAACCATGATAGAAAATAATCCAATG
GTGGAAGATTGATGGAGCTGTATTGTGTATGGATGCAAAGATCAATTTTGACTCTAAT
TCAGCCTATCGCCAAAAGAAAATCTTTGATCTACAGGACTGGACCAGGAAGATGAAAGG
GACAAAGATGCTGCTAAGGCAAATCTCAACTACATTGGCCTCGATGGAAATATAGGCTGC
CTAGTAAATGGTCTGGTTTGGCTATGGCCACAATGGATATAATAAACTTCATGGAGGG
ACTCCAGCCAACCTCCTTGATGTTGGTGGTGGTGTACAGTCCATCAAGTAAACAGAAGCA
TTTAAGCTTATCACTTACAGATAAAAAGGTAAGTGGCTATTCTGGTCAACATTTTTGGAGGA
ATCATGCGCTGTGATGTTATTGCACAGGGTATAGTCATGGCAGTAAAAGACTTGGAAATT
AAAATACCTGTTGTGGTACGGTTACAAGGTACACGAGTCGATGATGCTAAGGCACGTATA
GCGGACAGTGGACTTAAATACTTGTGCTTGTGATGACTTGGATGAAGCTGCTAGAATGGTT
GTAAGCTCTCTGAAATAGTGACCTTAGCGAAGCAAGCACATGTGGATGTGAAATTTAG
TTGCCAATATGA

```

Clone variation with respect to NM\_003850.2  
595 t=>a

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_003850 unedited

```

GTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCGGGTCCGACTCAGAA
ATGGCGGCCTCCATGTTCTACGGCAGGCTAGTGGCCGTGGCCACCCTTCGGAACCACCGG
CCTCGGACGGCCAGCGGGCTGCTGCTCAGGTTCTGGGAAGTTCTGGATTGTTTAATAAC
CATGGACTCCAAGTACAGCAGCAACAGCAAAGGAATCTCTCACTACATGAATACATGAGT
ATGGAATTATTGCAAGAAGCTGGTGTCTCCGTTCCCAAAGGATATGTGGCAAAGTCACCA
GATGAAGCTTATGCAATTGCCAAAAAATTAGGTTCAAAGATGTCGTGATAAAGGCACAG
GTTTTAGCTGGTGGTAGAGGAAAAGGAACATTTGAAAGTGGCCTCAAAGGAGGAGTGAAG
ATAGTTTTCTCTCCAGAAGAAGCAAAAGCTGTTTCTTCAAAATGATTGGGAAAAAATTG
TTTACCAAGCAAACGGGAGAAAAGGGCAGAATATGCAATCAAGTATTGGTCTGTGAGCGA
AAATATCCAGGAGAGAAATACTACTTTGCAATAACAATGGAAAGGTCATTTCAAGTCTCT
GTATTAATAGGAAGTTCACATGNGTGGTGTCAACATTGAAGATGTTGCTGCTGAGACTCC
TGAAGCATAATTAAGAACCTATTGATATTGAAGAAGGCATCAAAGGAACAAGCTCTC
CAGCTTGACAGAAAGATGGGATTTCCACCTAATATTGTGGAATCAGCAGCAGAAAACATG
TCAAGCTTTACAGNCCTTTNNTCTGAAATACGATGCACCATGATAGAAAATAATCCAATG
TGGNAAGATCAGATGGAGCTGTATTGTGTATGGGATGCAAGATCAATTTTGACTCTAATT
CAGCCTATCGCCAAA

```

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_003850 unedited CAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTCTATTGGGAAGATTTTATTAACCTTA AATTGACATTCTTAATTTTGTCTGTAAGTCCTTGGTATATATGCCTTTATTTGAAGCAA CCTACAGGTGTTTCTTAATATGACAGAATCATGAAGACTTGCAGTTAATCAGTGTTCCT AATGATTAACAATGTTCAAATAATTACAAAGTTACTTCATCAAATACTTAGAAGAAT ATTCTGAGGAGTGTGGAAAGCTCTGTTTATAAATAGTGATTGATACATTTATCATGTAT TTGGTGCTGAAGATAAACACTTTTTACATAAAACATTGTTTTAATACTGCTCTACTAA TGAGGCTAGTTATTAGATATACTGTATTTTAACTAAAGAATAAAGCTTTATCTTCGTA TTTATCTTATTTATAGGACTCTTATCAATGAAGAACTTTGTATCCAACAATAATAAACTG GCAAAATGCAAGTTACGTTTTTGTAGGAGAAGCAAAAAGACTGGCTGCCACCAAGAAA GAAATACTGCCTATACATGCTTCGTCACAAACAGTCATTTCTGATGGACCATTAATGCC ATCCAAATCCTTTTAAATGTTTCGGGGCCTAAATGGCATTCCAATCCCCCCCCCTCAAAG AAAACGAACACTCCCCCAACACATTTTTTTTATGGATTACCCATTTAACACCTTCACC CATCCACTGGGTTTTTAGATCTATTCGGAAGTGAATCCCACTCCAATTTGCTTGTTTT CCTTAAGCACTTTTCAACAGGTACACCCTTCTACACTCTTCCCACCTTCCAACC ATTTTGTAAAGTACTCGGGCCCTTAAAGGCTAACCTATAGACTCGGGTCCCTGGTACCGCC CCAACAGTGTATTTACCTTTCCTGGCCTAATTCCTGGGCACACCCCAACCGAGTT CTCTCAAGTGACCACAACCCCTCTTTTGAAGGAAAN
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_003850
<b>Insert Size:</b>	2090 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><a href="#">NM_003850.1</a></u> , <u><a href="#">NP_003841.1</a></u>
<b>RefSeq Size:</b>	2178 bp
<b>RefSeq ORF:</b>	1392 bp
<b>Locus ID:</b>	8803
<b>UniProt ID:</b>	<u><a href="#">Q9P2R7</a></u>
<b>Cytogenetics:</b>	13q14.2
<b>Domains:</b>	ATP-grasp, ligase-CoA

**Protein Pathways:**

Citrate cycle (TCA cycle), Metabolic pathways, Propanoate metabolism

**Gene Summary:**

Succinyl-CoA synthetase (SCS) is a mitochondrial matrix enzyme that acts as a heterodimer, being composed of an invariant alpha subunit and a substrate-specific beta subunit. The protein encoded by this gene is an ATP-specific SCS beta subunit that dimerizes with the SCS alpha subunit to form SCS-A, an essential component of the tricarboxylic acid cycle. SCS-A hydrolyzes ATP to convert succinate to succinyl-CoA. Defects in this gene are a cause of myopathic mitochondrial DNA depletion syndrome. A pseudogene of this gene has been found on chromosome 6. [provided by RefSeq, Jul 2008]