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Product datasheet for RC205212

SUCLA2 (NM_003850) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SUCLA2 (NM_003850) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SUCLA2
Synonyms:	A-BETA; A-SCS; LINC00444; MTDPS5; SCS-betaA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC205212 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCCTCCATGTTCTACGGCAGGCTAGTGGCCGTGGCCACCCTTCGGAACCACCGGCCTCGGACGG
CCCAGCGGGCTGCTGCTCAGGTTCTGGGAAGTTCTGGATTGTTTAATAACCATGGACTCCAAGTACAGCA
GCAACAGCAAAGGAATCTCTCACTACATGAATACATGAGTATGGAATTATTGCAAGAAGCTGGTGTCTCC
GTTCCCAAAGGATATGTGGCAAAGTCACCAGATGAAGCTTATGCAATTGCCAAAAAATTAGGTTCAAAAG
ATGTCGTGATAAAGGCACAGGTTTTAGCTGGTGGTAGAGGAAAAGGAACATTTGAAAGTGGCCTCAAAGG
AGGAGTGAAGATAGTTTTCTCTCCAGAAGAAGCAAAAGCTGTTTCTTCACAAATGATTGGGAAAAAATTG
TTTACCAAGCAAACGGGAGAAAAGGGCAGAATATGCAATCAAGTATTGGTCTGTGAGCGAAAATATCCCA
GGAGAGAATACTACTTTGCAATAACAATGGAAAGGTCATTTCAAGGTCCTGTATTAATAGGAAGTTCACA
TGGTGGTGTCAACATTGAAGATGTTGCTGCTGAGTCTCCTGAAGCAATAATTAAAGAACCTATTGATATT
GAAGAAGGCATCAAAAAGGAACAAGCTCTCCAGCTTGCACAGAAGATGGGATTTCCACCTAATATTGTGG
AATCAGCAGCAGAAAACATGGTCAAGCTTTACAGCCTTTTTCTGAAATACGATGCAACCATGATAGAAAT
AAATCCAATGGTGGAAGATTCAGATGGAGCTGTATTGTGTATGGATGCAAAGATCAATTTTGACTCTAAT
TCAGCCTATCGCCAAAAGAAAATCTTTGATCTACAGGACTGGACCCAGGAAGATGAAAGGGACAAAGATG
CTGCTAAGGCAAATCTCAACTACATTGGCCTCGATGGAAATATAGGCTGCCTAGTAAATGGTGCTGGTTT
GGCTATGGCCACAATGGATATAATAAAACTTCATGGAGGGACTCCAGCCAACTTCCTTGATGTTGGTGGT
GGTGCTACAGTCCATCAAGTAACAGAAGCATTTAAGCTTATCACTTCAGATAAAAAGGTACTGGCTATTC
TGGTCAACATTTTTGGAGGAATCATGCGCTGTGATGTTATTGCACAGGGTATAGTCATGGCAGTAAAAGA
CTTGGAAATTAAAATACCTGTTGTGGTACGGTTACAAGGTACACGAGTCGATGATGCTAAGGCACTGATA
GCGGACAGTGGACTTAAAATACTTGCTTGTGATGACTTGGATGAAGCTGCTAGAATGGTTGTAAAGCTCT
CTGAAATAGTGACCTTAGCGAAGCAAGCACATGTGGATGTGAAATTTCAGTTGCCAATA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205212 protein sequence
Red=Cloning site Green=Tags(s)

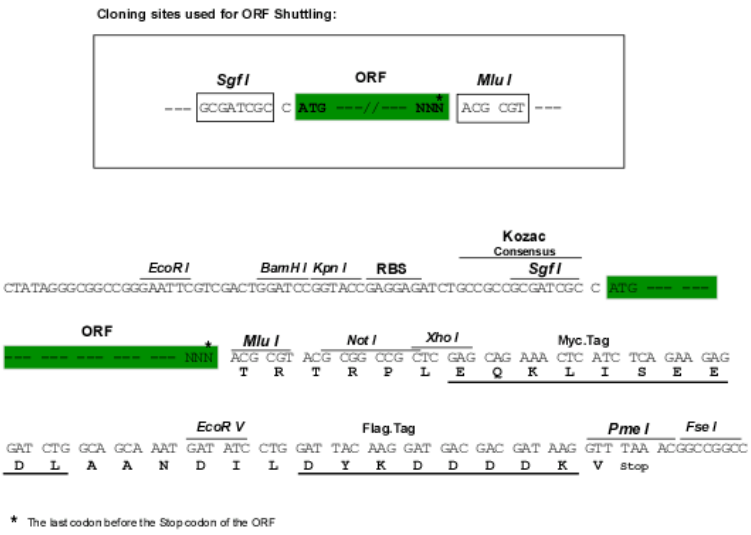
MAASMFYGRLVAVATLRNHRPRTAQRAAAQVLGSSGLFNNHGLQVQQQQQRNLSLHEYMSMELLQEAGVS
VPKGYVAKSPDEAYAIAKKLGSKDVVIKAQVLAGGRGKGTFESGLKGGVKIVFSPEEAKAVSSQMIGKKL
FTKQTGEKGRICNQVLVCERKYPRREYYFAITMERSFQGPVLIGSSHGGVNIEDVAAESPEAIIKEPIDI
EEGIKKEQALQLAQKMGFPPNIVESAAENMVKLYSLFLKYDATMIEINPMVEDSDGAVLCMDAKINFDSN
SAYRQKKIFDLQDWTQEDERDKDAAKANLNYIGLDGNIGCLVNGAGLAMATMDIIKLHGGTPANFLDVGG
GATVHQVTEAFKLITSDKKVLAILVNIFGGIMRCDVIAQGIVMAVKDLEIKIPVVVRLQGTRVDDAKALI
ADSGLKILACDDLDEAARMVVKLSEIVTLAKQAHVDVKFQLPI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6072_a04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003850

ORF Size: 1389 bp

OTI Disclaimer: 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_003850.3

RefSeq Size: 2182 bp

RefSeq ORF: 1392 bp

Locus ID: 8803

UniProt ID: Q9P2R7

Cytogenetics: 13q14.2

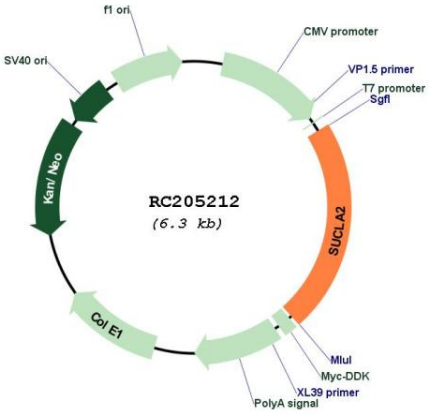
Domains: ATP-grasp, ligase-CoA

Protein Pathways: Citrate cycle (TCA cycle), Metabolic pathways, Propanoate metabolism

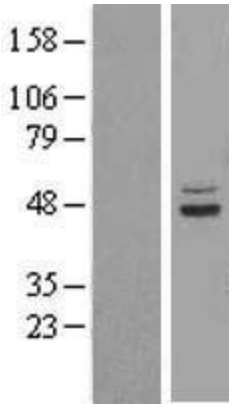
MW: 50.3 kDa

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]

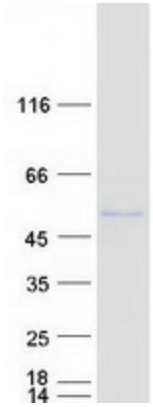
Product images:



Circular map for RC205212



Western blot validation of overexpression lysate (Cat# [LY401267]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205212 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SUCLA2 protein (Cat# [TP305212]). The protein was produced from HEK293T cells transfected with SUCLA2 cDNA clone (Cat# RC205212) using MegaTran 2.0 (Cat# [TT210002]).