

## Product datasheet for **SC311397**

### COASY (NM\_001042532) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	COASY (NM_001042532) Human Untagged Clone
Tag:	Tag Free
Symbol:	COASY
Synonyms:	DPCK; NBIA6; NBP; PCH12; pOV-2; PPAT; UKR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



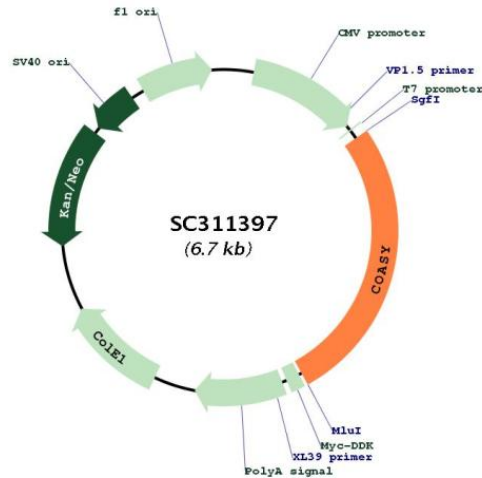
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**Fully Sequenced ORF:** >SC311397 representing NM\_001042532.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

```

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAGGACACCAAGGCTTAGAGCACAGCCCGAGGCGCCGTCTACCAGGCCCGTCCCTCCCCGGCT
CCTGTGCGCCTGGGCAGCATGGCCGTATCCGGTCGGTCTCCTGGTGCTGACGACGCCGTGGCCTCC
CTAGCCCCTCGCCTGGCCTCCATCCTGACCTCGGCGGCCGGCTGGTGAATCACACTCTATGTTAC
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CTTGTGGAACAGAGCCACGTGGTGTGCTCAGCACCTTGTGGGAGCCGCATATCACCCAACGCCAGGTGGAG
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
```

**Restriction Sites:** SgfI-MluI

**Plasmid Map:**


**ACCN:** NM\_001042532

**Insert Size:** 1782 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:**

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\\_001042532.3](#)

**RefSeq Size:** 2314 bp

**RefSeq ORF:** 1782 bp

**Locus ID:** 80347

**UniProt ID:** [Q13057](#)

**Cytogenetics:** 17q21.2

**Protein Pathways:** Metabolic pathways, Pantothenate and CoA biosynthesis

**MW:** 65.3 kDa

**Gene Summary:** Coenzyme A (CoA) functions as a carrier of acetyl and acyl groups in cells and thus plays an important role in numerous synthetic and degradative metabolic pathways in all organisms. In eukaryotes, CoA and its derivatives are also involved in membrane trafficking and signal transduction. This gene encodes the bifunctional protein coenzyme A synthase (CoAsy) which carries out the last two steps in the biosynthesis of CoA from pantothenic acid (vitamin B5). The phosphopantetheine adenyltransferase domain of this bifunctional protein catalyzes the conversion of 4'-phosphopantetheine into dephospho-coenzyme A (dpCoA) while its dephospho-CoA kinase domain completes the final step by phosphorylating dpCoA to form CoA. Mutations in this gene are associated with neurodegeneration with brain iron accumulation (NBIA). Alternative splicing results in multiple isoforms. [provided by RefSeq, Apr 2014]

Transcript Variant: This variant (4) differs in the 5' UTR and contains an additional segment in the 5' coding region, compared to variant 1. The resulting isoform (c, also known as CoASy beta) is longer at the N-terminus, compared to isoform a.