

Product datasheet for **RC209424**

COASY (NM_001042530) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COASY (NM_001042530) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	COASY
Synonyms:	DPCK; FLJ35179; NBP; pOV-2; PPAT; UKR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209424 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCCGTATCCGGTCGGTCTCTGGTGTGACGACGCGCTGGCCTCCCTAGCCCTCGCCTGGCCT
 CCATCCTGACCTCGGCGGCCGGCTGGTGAATCACACTCTATGTTACCTGCAGCCGGGCATGAGCCT
 GGAGGGCCCGGCTCAGCCCCAGTACAGCCCGTGCAGGCCACGTTTGAGGTTCTTGATTTATCAGCGAC
 CTCTATGCTGGCGCCGACGTCCACAGGCACTTGGACGTGAGAATCCTACTGACCAATATCCGAACCAAGA
 GCACCTTTCTCCCTCCCTGCCACCTCAGTCCAGAATCTCGCCACCCGCCAGAAGTCGTGTTGACAGA
 TTTCCAGACCCTGGATGGAAGCCAGTACAACCCGGTCAAACAGCAGCTAGTGCCTTACGCCACCAGCTGT
 TACAGCTGTTGTCGCGACTGGCCTCGGTGCTGCTATACTCCGATTATGGGATAGGAGAAGTGCCCGTGG
 AGCCCTGGATGTCCCTTACCCTCCACGATCAGGCCAGCTTCCCCGTGGCCGGTCTCCAAGCAGCC
 GGTGCGTGGCTACTACCGTGGCGCTGTCGGTGGCAGCTTGGACCGCTGCACAACGCCACAAGGTGTTG
 CTAGTGTGCGGTGCATCCTGGCCAGGAGCAGCTTGTGGTGGGAGTAGCAGACAAAGATCTGTTGAAGA
 GCAAGTTGCTCCCTGAGCTGCTCCAACCTTATACAGAACGTGTGGAACATCTGAGTGAATTCCTGGTGG
 CATCAAGCCCTCCTTGACTTTTGATGTCATCCCTGCTGGACCCCTATGGGCCCGCTGGCTCTGACCC
 TCCCTGGAGTTCTGGTGGTCCAGCAGGAGACCTATCGTGGGGGATGGCCATCAACCGCTTCCGCTTG
 AGAATGACCTGGAGAACTTGTGTTGTACCAGATCCAGCTGCTGAAGGACCTCAGACATACGGAGAATGA
 AGAGGACAAAGTCAGCTCCTCCAGCTCCGCCAGCGAATGTTGGGAACTGCTTCGGCTCCATATGAA
 AGGCCAGACTCCCACATGTCTCTATGTAATTGGCTGACTGGCATCAGTGGCTCTGGGAAGAGCTCAA
 TAGCTCAGCGACTGAAGGGCTGGGGCGTTTGTATTGACAGTACCACCTGGGCTCATCGGCTATGC
 CCCAGTGGCCCTGCCTACCAGCTGTGGTGGAGGCCTTGGAAACAGATATTCTCCATAAAGATGGCATC
 ATCAACAGGAAGTCTAGGCAGCCGGTGTGGGAATAAGAAGCAGCTGAAGATACTACGGACATTA
 TGTGGCAATTATCGAAAGCTGGCCCGAGAGGAGATGGATCGGGCTGTGGCTGAGGAAAGCGTGTGTG
 TGTGATTGATGCCGTGTGTTGTTGAAGCCGGCTGGCAGAACCTGGTCCATGAGGTGTGGACTGCTGTC
 ATCCCAGAGACTGAGGCTGTAAGACGATTGTGGAGAGGGATGGCCTCAGTGAAGCCGGCTCAAAGCC
 GGCTGCAGAGCCAGATGAGCGGGCAGCAGCTTGTGGAACAGGCCACGTGGTGTCTCAGCACCTTGTGGGA
 GCCGATATACCCAACGCCAGGTGGAGAAAGCCTGGGCCCTCTGCAGAAGCGCATTCCAAGACTCAT
 CAGGCCCTCGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209424 protein sequence
 Red=Cloning site Green=Tags(s)

MAVFRSGLLVLTTPLASLAPRLASILTSAARLVNHTLYVHLQPGMSLEGPAQPQYSPVQATFEVLDFITH
 LYAGADVHRHLDVRIILLTNIRTKSTFLPPLPSTSVQNLAHPPPEVLTDFQTLDGSQYNPVKQQLVRYATSC
 YSCCPRLASVLLYSDYIGIEVPEPLDVPLPSTIRPASPVAGSPKQPVRYRGAVGGTFDRLHNAHKVL
 LSVACILAEQQLVVGVDKDLLKSKLPELLQPYTERVEHLSEFLVDIKPSLTFDVIPLLDYPGAGSDP
 SLEFLVSEETYRGGMAINRFRENDLEELALYQIQLLDRHTENEEDKVSSSSFRQRLGNLLRPPYE
 RPELPTCLYVIGLTGISGSGKSSIAQRLKGLGAFVIDSDHLGHRAYAPGGPAYQPVEAFGTDILHKDGI
 INRKVLGSRVFGNKKQLKILTDIMWPIIAKLAREEMDRAVAEGKRVCVIDAAVLLEAGWQNLVHEVWTAV
 IPETEAVRRIVERDGLSEAAAQSRQLSQMSGQQLVEQSHVVLSTLWEPHITQRQVEKAWALLQKRIPKTH
 QALD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6044_a11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001042530

ORF Size: 1692 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001042530.1](#), [NP_001035995.1](#)

RefSeq Size: 2417 bp

RefSeq ORF: 1694 bp

Locus ID: 80347

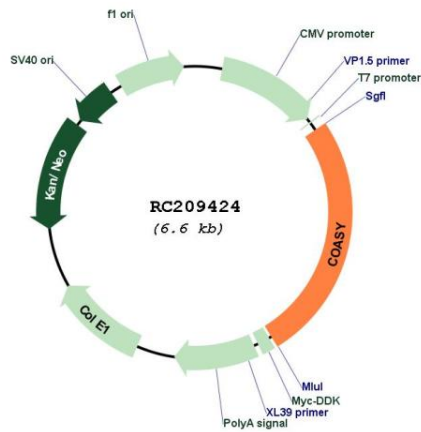
Cytogenetics: 17q21.2

Protein Pathways: Metabolic pathways, Pantothenate and CoA biosynthesis

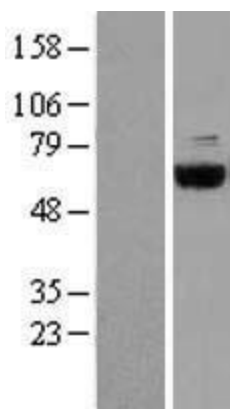
MW: 62.4 kDa

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]

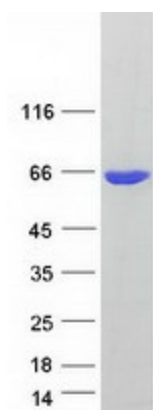
Product images:



Circular map for RC209424



Western blot validation of overexpression lysate (Cat# [LY403068]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC220733] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified COASY protein (Cat# [TP309424]). The protein was produced from HEK293T cells transfected with COASY cDNA clone (Cat# RC209424) using MegaTran 2.0 (Cat# [TT210002]).