

Product datasheet for **RC204626**

ACN9 (SDHAF3) (NM_020186) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACN9 (SDHAF3) (NM_020186) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACN9
Synonyms:	ACN9; DC11; LYRM10; Sdh7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204626 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGGGGCGGCACGTTTCTCGAGTCCGGCATTGTACAAGCGCGTCTTGCAGCTGCACCGTGTCTGC
CCCCGGACCTCAAATCCCTGGGCGACCAGTACGTGAAAGACGAATTTAGGAGACATAAGACCGTTGGTTC
TGACGAGGCACAGCGTTTCTTGAAGAATGGGAGGTGTATGCAACAGCGTTATTGCAACAGGCTAACGAA
AACAGACAAAATTCAACTGGAAAAGCATGTTTTGGCACCTTCTCCAGAAGAAAACTTAATGACTTTC
GTGATGAACAAATTGGACAGTTGCAGGAGCTGATGCAAGAAGCCACAAAACCAATAGGCAATTTAGTAT
TTCTGAGTCTATGAAACCAAAATTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC204626 protein sequence Red=Cloning site Green=Tags(s)
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MPGRHVSRRVRLYKRVLQLHRVLPDDLKSLGDQYVDFRRHKTVGSDEAQRFLQEWVYATALLQQANE
NRQNSTGKACFGTFLPEEKLNDFRDEQIGQLQELMQEATKPNRQFSISESMKPKF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:	https://cdn.origene.com/chromatograms/mk6438_a12.zip
Restriction Sites:	Sgfl-Mlul



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Cloning Scheme:


ACCN: NM_020186

ORF Size: 375 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_020186.3](#)

RefSeq Size: 2068 bp

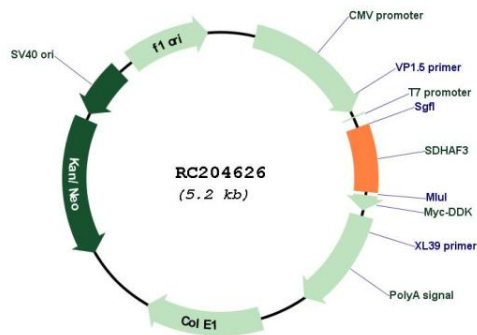
RefSeq ORF: 378 bp

Locus ID: 57001
 UniProt ID: [Q9NRP4](#)
 Cytogenetics: 7q21.3

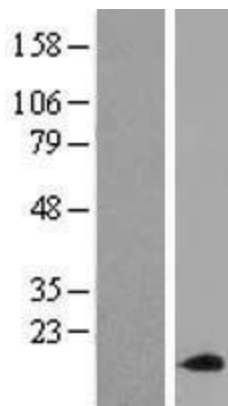
MW: 14.7 kDa

Gene Summary: Plays an essential role in the assembly of succinate dehydrogenase (SDH), an enzyme complex (also referred to as respiratory complex II) that is a component of both the tricarboxylic acid (TCA) cycle and the mitochondrial electron transport chain, and which couples the oxidation of succinate to fumarate with the reduction of ubiquinone (coenzyme Q) to ubiquinol. Promotes maturation of the iron-sulfur protein subunit SDHB of the SDH catalytic dimer, protecting it from the deleterious effects of oxidants. May act together with SDHAF1.[UniProtKB/Swiss-Prot Function]

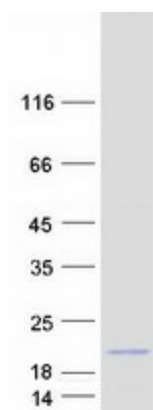
Product images:



Circular map for RC204626



Western blot validation of overexpression lysate (Cat# [LY412608]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204626 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SDHAF3 protein (Cat# [TP304626]). The protein was produced from HEK293T cells transfected with SDHAF3 cDNA clone (Cat# RC204626) using MegaTran 2.0 (Cat# [TT210002]).