

## Product datasheet for **RC205542**

### **C6orf57 (SDHAF4) (NM\_145267) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** C6orf57 (SDHAF4) (NM\_145267) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** C6orf57  
**Synonyms:** C6orf57; Sdh8  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC205542 ORF sequence  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

**ATGACCCATCGAGGCTTCCTGGTTGCTTAGCTGGTCTCGGCCACGGCGTGGAGAGCGGCAAGATCAC**  
**CCCTTCTGTGTCATTCTCTGAGGAAAACAAGTTCTTCTCAAGGAGGAAAGTCTGAACTTGTCAAACAGTC**  
**CCTTAAGAAGCCGATGTTACCAGAAGGTCGTTTTGATGCACCAGAGGATCCCATTTAGAGAAAGAACCA**  
**CTGAAAAATTTCCAGATGATGTTAATCCAGTGACCAAAGAAAAAGGTGGACCCAGGGGCCAGAACCTA**  
**CCCGATATGGAGATTGGGAACGAAAAGGACGCTGTATTGATTTT**

**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT**  
**ACAAGGATGACGACGATAAGGTTTAA**

**Protein Sequence:** >RC205542 protein sequence  
**Red=Cloning site Green=Tags(s)**  
  
MTPSRLPWLLSWVSATAWRAARSPLLCHSLRKTSSSQGGKSELVKQSLKKPMLPEGRFDAPEDSHLEKEP  
LEKFPDDVNPVTKKGGPRGPEPTRYGDWERKGRCIDF

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6313\\_h09.zip](https://cdn.origene.com/chromatograms/mk6313_h09.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_145267

**ORF Size:** 324 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\\_145267.1](#)

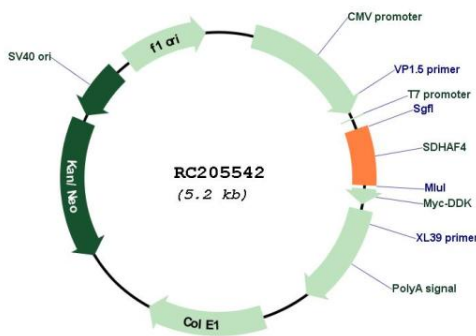
**RefSeq Size:** 526 bp

**RefSeq ORF:** 327 bp

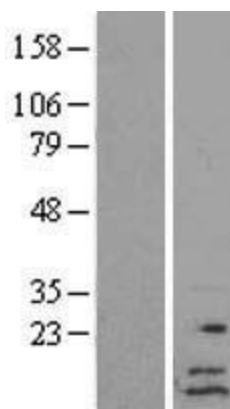
**Locus ID:** 135154  
**UniProt ID:** [Q5VUM1](#)  
**Cytogenetics:** 6q13  
**Protein Families:** Secreted Protein  
**MW:** 12.2 kDa

**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 (PubMed:24954416). Binds to the flavoprotein subunit SDHA in its FAD-bound form, blocking the generation of excess reactive oxygen species (ROS) and facilitating its assembly with the iron-sulfur protein subunit SDHB into the SDH catalytic dimer (By similarity).[UniProtKB/Swiss-Prot Function]

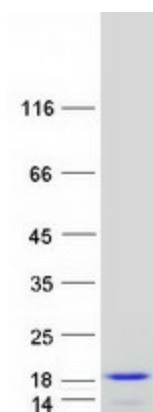
### Product images:



Circular map for RC205542



Western blot validation of overexpression lysate (Cat# [LY407992]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205542 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SDHAF4 protein (Cat# [TP305542]). The protein was produced from HEK293T cells transfected with SDHAF4 cDNA clone (Cat# RC205542) using MegaTran 2.0 (Cat# [TT210002]).