

## Product datasheet for **MG209872**

### **Sdha (NM\_023281) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Sdha (NM_023281) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sdha
Synonyms:	1500032O14Rik; 2310034D06Rik; 4921513A11; C81073; FP; SDH2; SDHF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>MG209872 representing NM\_023281  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGCCGGGGTTGGCGCAGTTTCGAGGCTTCTTCGCGGGCGCGCTTGGCGTTAACTGGGGCGTGGCCAG  
 GAACACTCCAAAAACAGACCTGCGGCTTTCACCTCTCTGTTGGTGAACAAGAAGGCATCAGCTAAAGT  
 TTCAGATGCAATTTCTACTCAATACCCAGTGGTGGATCATGAATTTGATGCTGTGGTTGTAGGCGCTGGA  
 GGGGCAGGCTTGCAGACTGCATTTGGCCTTCTGAGGCAGGGTTAATACTGCATGCCTTACAAAGCTCT  
 TTCCTACCCGATCACATACTGTTGCAGCACAGGGAGGTATCAATGCTGCTCTGGGGAACATGGAAGAGGA  
 CAACTGGAGATGGCATTCTATGACACTGTGAAAGGCTCCGACTGGTGGGGATCAGGATGCCATCCAT  
 TACATGACAGAGCAAGCTCCTGCCTCTGTGGTTGAGCTAGAAAATATGGTATGCCATTTAGCAGAACTG  
 AAGATGGGAAGATTTATCAGCGTGCATTTGGTGGACAGAGCCTCAAGTTGGGAAAGCGGGCAGGCTCA  
 TCGGTGTTGCTGTGTGGCTGATCGGACAGGCCACTCACTTTACACACGTTGTATGGAAGATCTCTGCCA  
 TATGACACCAGTTATTTTGTGGAATATTTTGCCTGATCTTCTGATGAAAAATGGGGAGTGCCGTGGTG  
 TCATTGCACTGTGCATAGAAGATGGGTCCATACACCGAATAAGAGCAAAAAACACTGTTATTGCTACTGG  
 GGGCTACGGGCGAACCTACTTACGCTGTACATCTGCCATACAGCACAGGGGACGGCACAGCCATGGTC  
 ACTAGGGCTGGTTTGCCTTGGCAGGACTTAGAATTTGTTGAGTCCACCCACAGGTATATACGGTGCTG  
 GCTGCCTCATCACAAGGGTGTCTGGAGAGGGGGGATTCTCATCAACAGTCAAGGTGAAAGGTTTCAT  
 GGAGAGATACGCACCTGTTGCCAAGGACCTGGCATCAAGAGATGTTGTGTCTCGATCCATGACTCTTGAG  
 ATCCGTGAAGGAAGAGGCTGTGGCCCTGAGAAAGATCACGTCTACCTGCAGTTGCATCATCTGCCTCCTG  
 AGCAACTGGCCACACGTCTGCCCGGAATTCAGAAACGGCCATGATCTTCGCTGGTGTGGATGTCATAA  
 GGAGCCCATCCCAGTCTCCCCTGTGCATTACAACATGGGTGGGATTCCCCTAACTACAAGGGACAG  
 GTGCTGAAGCATGTGAATGGCCAGGATCAGATTGTGCCTGGTCTGTATGCCTGTGGGGAGGCTGCCTGCG  
 CCTCAGTGCATGGTGCCAACCGCTTGGAGCAAATTCCTCTTGGACCTTGTAGTCTTTGGCAGAGCCTG  
 TGCCCTGAGCATTGCAGAATCTTGCAGGCTGGAGATAAAGTTCCTTCAATTAAGGCAAATGCTGGAGAA  
 GAATCGGTTATGAATCTTGACAAGTTGAGATTTGCCGATGGAAGTATAAGAACATCAGAAGTGGCCTAA  
 ACATGCAGAAGTCGATGCAGAACCATGCTGCAGTGTCCGTGTGGGAAGTGTATTGCAAGAAGGCTGTGA  
 AAAATCAGTCAGCTCTATGGAGACCTAAAGCATCTAAAGACATTTGACAGGGGAATGGTTTGGAAACACA  
 GACCTGGTGGAGACCCTGGAGCTGCAGAATCTGATGCTGTGCGCACTGCAGACCATATATGGTGCAGAAG  
 CTCGGAAGGAGTCCCGGGGAGCCATGCCAGGGAAGATTACAAAGTGGGGTTCGATGAGTATGATTACTC  
 CAAGCCATCCAGGGACAGCAGAAGAAGCCGTTTGGGGAACACTGGAGGAAGCACACGCTCTCATATGTG  
 GACATCAAGACTGGCAAGGTTACTTTGGAGTACAGACCTGTTATCGACAAGACCTTGAATGAGGCTGACT  
 GTGCCACCGTACCTCCTGCTATCCGTTCTTAC

ACGCGTACGCGGGCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG209872 representing NM\_023281  
 Red=Cloning site Green=Tags(s)

MAGVGAVSRLLRGRRLALTGAWPGTLQKQTCGFHFSVGENKKASAKVSDAISTQYPVVDHEFDVAVVVGAG  
 GAGLRAAFGLSEAGFNACLTKLFPTRSHTVAAQGGINAALGNMEEDNWRWHFYDVKGSDWLGDDAIH  
 YMTEQAPASVVELENYGMPFSRTEDGKIYQRAFGGQSLKFKGKGGQAHRCVVADRTGHSLHLHTLYGRSLR  
 YDTSYFVEYFALDLLMENGECRGVIALCIEDGSIHRIRAKNTVIATGGYGRTYFSC TSAHTSTGDGTAMV  
 TRAGLPCQDLEFVQFHPTGIYGAGCLITEGCRGEGGILINSQGERFMERYAPVAKDLASRDVVSRSMTLE  
 IREGRGCGPEKDHVYLQLHHLPEQLATRLPGISETAMIFAGVDVTKEPIPVLPVHYNMGGIPTNYKGGQ  
 VLKHVNGQDQIVPGLYACGEAACASVHGANRLGANSLLDLVVFGRACALSIAESCRPGDKVPSIKANAGE  
 ESVMNLDKLRFADGSI RTSELRLNMQSMQNHAAVFRVGSVLQEGCEKISQLYGD LKHLKTFDRGMVWNT  
 DLVETLELQNLMLCALQTIYGAEARKESRGAHAREDYKVRVDEYDYSKPIQGQKPFGEHWRKHTLSYV  
 DIKTGKVTLEYPVIDKTLNEADCATVPPAIRSY

TRTRPLE - GFP Tag - V

Restriction Sites:

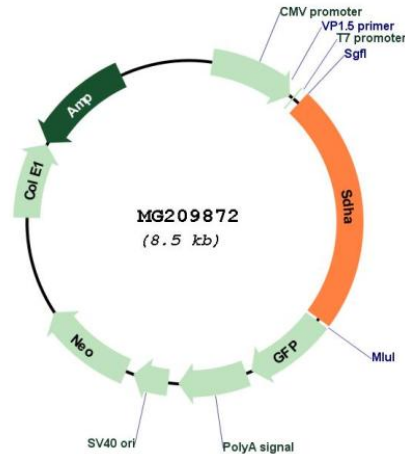
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM\_023281

ORF Size: 1992 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\\_023281.1](#), [NP\\_075770.1](#)

RefSeq Size: 2859 bp

RefSeq ORF: 1995 bp

Locus ID: 66945

UniProt ID: [Q8K2B3](#)

Cytogenetics: 13 C1

**Gene Summary:** Flavoprotein (FP) subunit of succinate dehydrogenase (SDH) that is involved in complex II of the mitochondrial electron transport chain and is responsible for transferring electrons from succinate to ubiquinone (coenzyme Q). Can act as a tumor suppressor.[UniProtKB/Swiss-Prot Function]