

Product datasheet for **RG200349**

SDHA (NM_004168) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SDHA (NM_004168) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SDHA
Synonyms:	CMD1GG; FP; MC2DN1; NDAXOA; PGL5; SDH1; 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:

>RG200349 representing NM_004168
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGGGGTCCGGGGCTGTCCGGCTGCTGAGCGCTCGGCGCTGGCGCTGGCCAAGCGTGGCCAA
 CAGTGTGGCAAACAGGAACCCGAGGTTTTCACTTCACTGTTGATGGGAACAAGAGGGCATCTGCTAAAGT
 TTCAGATTCCATTTCTGCTCAGTATCCAGTAGTGGATCATGAATTTGATGCAAGTGGTGGTAGCGCTGGA
 GGGCAGGCTTGCAGCTGCATTTGGCCTTTCTGAGGCAGGGTTAATACAGCATGTGTTACCAAGCTGT
 TTCCTACCAGGTCACACTGTTGCAGCACAGGGAGGAATCAATGCTGCTCTGGGAAACATGGAGGAGGA
 CAACTGGAGTGGCATTCTACGACACCGTGAAGGGCTCCGACTGGTGGGGACCAGGATGCCATCCAC
 TACATGACGGAGCAGGCCCGCCCGCTGGTGCAGCTAGAAAATATGGCATGCCGTTTAGCAGAACTG
 AAGATGGGAAGATTTATCAGCGTGCATTTGGTGGACAGAGCCTCAAGTTGGAAAGGGCGGGCAGGCCCA
 TCGGTGCTGCTGTGGCTGATCGGACTGGCCACTCGCTATTGCACACCTTATATGGAAGTCTCTGCCA
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 TCATCGCACTGTGCATAGAGGACGGTCCATCCATCGCATAAGAGCAAAGAACACTGTTGTTGCCACAGG
 AGGCTACGGGCGCACCTACTTCACTGTCACGTCTGCCACACCAGCACTGGCGACGGCACGGCCATGATC
 ACCAGGGCAGGCCTTCTTCCAGGACCTAGAGTTTGTTCAGTCCACCCACAGGCATATATGGTGCTG
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 GTCCTGAGGCACGTGAATGGCCAGGATCAGATTGTGCCCGCCTGTACGCCTGTGGGGAGGCCGCTGTG
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 GAATCTGTCATGAATCTTGACAAATTGAGATTTGCTGATGGAAGCATAAGAACATCGAACTGCGACTCA
 GCATGCAGAAGTCAATGCAAAATCATGCTGCCGTGTTCCGTGTGGGAAGCGTGTGCAAGAAGGTTGTGG
 GAAAATCAGCAAGCTCTATGGAGACCTAAAGCACCTGAAGACGTTCCGACGGGGAATGGTCTGGAACACG
 GACCTGGTGGAGACCCTGGAGCTGCAGAACCTGATGCTGTGTGCGCTGCAGACCATCTACGGAGCAGAGG
 CACGGAAGGAGTACGGGGCGCGCATGCCAGGGAAGACTACAAGGTGCGGATTGATGAGTACGATTACTC
 CAAGCCATCCAGGGCAACAGAAGAAGCCCTTTGAGGAGCACTGGAGGAAGCACACCCTGTCTATGTG
 GACGTTGGCACTGGGAAGGTCACTCTGGAATATAGACCGTGATCGACAAAACCTTTGAACGAGGCTGACT
 GTGCCACCGTCCCGCCAGCCATTCGCTCTAC

ACGCGTACGCGGGCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG200349 representing NM_004168
Red=Cloning site Green=Tags(s)

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MSGVVRGLSRLLSARRLALAKAWPTVLQTGTRGFHFTVDGNKRASAKVSDSISAQYPVVDHEFDVAVVVGAG
GAGLRAAFGLSEAGFNTACVTKLFPTRSHTVAAQGGINAALGNMEEDNWRWHFYDVKGSDWLGDDQDAIH
YMTEQAPAAVVELENYGMPFSRTEDGKIYQRAFGGQSLKFKGKGGQAHRCVVADRTGHSLHLHTLYGRSLR
YDTSYFVEYFALDLLMENGECRGVIALCIEDGSIHRIRAKNTVVATGGYGRTYFSCSAHTSTGDGTAMI
TRAGLPCQDLEFVQFHPTGIYGAGCLITEGCRGEGGILINSQGERFMERYAPVAKDLASRDVVSRSMTLE
IREGRGCGPEKDHVYLQLHHLPEQLATRLPGISETAMIFAGVDVTKEPIVPLPTVHYNMGGIPTNYKGGQ
VLRHVNGDQDQIVPGLYACGEAACASVHGANRLGANSLLDLVVFGRACALSIEESCRPGDKVPPIKPNAGE
ESVMNLDKLRFDGSIKRTSELRLSMQKSMQNHAAVFRVGSVLQEGCGKISKLYGDLKHLKTFDRGMVWNT
DLVETLELQNLMLCALQTIYGAEARKESRGHAREDYKVRIDEYDYSKPIQGQKPKFEEHWRKHTLSYV
DVG TGKVTLE YRPVIDKTLNEADCATVPPAIRSY
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004168

ORF Size: 1992 bp

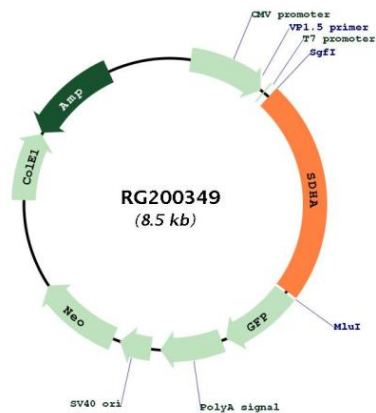
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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_004168.1 , NP_004159.1
RefSeq Size:	2277 bp
RefSeq ORF:	1995 bp
Locus ID:	6389
UniProt ID:	P31040
Cytogenetics:	5p15.33
Domains:	FAD_binding_2, succ_DH_flav_C
Protein Families:	Druggable Genome
Protein Pathways:	Alzheimer's disease, Citrate cycle (TCA cycle), Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
Gene Summary:	This gene encodes a major catalytic subunit of succinate-ubiquinone oxidoreductase, a complex of the mitochondrial respiratory chain. The complex is composed of four nuclear-encoded subunits and is localized in the mitochondrial inner membrane. Mutations in this gene have been associated with a form of mitochondrial respiratory chain deficiency known as Leigh Syndrome. A pseudogene has been identified on chromosome 3q29. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2014]

Product images:



Circular map for RG200349