

Product datasheet for **RG203182**

SDHB (NM_003000) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | SDHB (NM_003000) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | SDHB |
| Synonyms: | CWS2; IP; MC2DN4; PGL4; SDH; SDH1; SDH2; SDHIP |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG203182 representing NM_003000 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCGGGTGGTGCCTCTCCTTGAGGCGCCGGTTGCCGCCACAACCCTTGCGGAGCCTGCCTGC
AGGCCTCCCGAGGAGCCAGACAGCTGCAGCCACAGCTCCCCGTATCAAGAAATTTGCCATCTATCGATG
GGACCCAGACAAGGCTGGAGACAACTCATATGCAGACTTATGAAGTTGACCTTAATAATGTGGCCCC
ATGGTATTGGATGCTTTAATCAAGATTAAGAATGAAGTTGACTCTACTTTGACCTTCCGAAGATCATGCA
GAGAAGGCATCTGTGGCTTTGTGCAATGAACATCAATGGAGGCAACACTCTAGCTTGCACCCGAAGGAT
TGACACCAACCTCAATAAGGTCTCAAAAATCTACCCTCTCCACACATGTATGTGATAAAGGATCTTGT
CCCGATTTGAGCAACTTCTATGCACAGTACAAATCCATTGAGCCTTATTTGAAGAAGAAGGATGAATCTC
AGGAAGGCAAGCAGCAGTATCTGCAGTCCATAGAAGAGCGTGAGAACTGGACGGGCTCTACGAGTGCAT
TCTCTGTGCTGTAGCACCAGCTGCCCCAGCTACTGGTGGAAACGGAGACAAAATCTGGGGCCTGCA
GTTCTTATGCAGGCTATCGCTGGATGATTGACTCCAGAGATGACTTCACAGAGGAGCGCCTGGCCAAGC
TGCAGGACCCATTCTCTATACCGCTGCCACACCATCATGAAGTGCACAAGGACCTGTCTAAGGGTCT
GAATCCAGGAAAGCTATTGCAGAGATCAAGAAATGATGGCAACCTATAAGGAGAAGAAAGCTTCAGTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG203182 representing NM_003000
 Red=Cloning site Green=Tags(s)

MAAVVALSLRRRLPATTLLGGACLQASRGAQTAATAPRIKKFAIYRWDPDKAGDKPHMQTYEVDLNKCGP
 MVLDALIKIKNEVDSTLTFRRSCREGICGSCAMNINGGNTLACTRRIDTNLNKVKIYPLPHMYVIKDLV
 PDL SNFYAQYKSI EPYLKKKDESQEGKQYLQSI EEREKLDGL YECILCACCCSTSCPSYWWNGDKYL GPA
 VLMQAYRWMIDSRDDFTEERLAKLQDPFSLYRCHTIMNCTRTCPKGLNPGKAI AEIKKMMATYKEKKASV

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_003000

ORF Size: 840 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_003000.2](#), [NP_002991.2](#)

RefSeq Size: 1161 bp

RefSeq ORF: 843 bp

Locus ID: 6390

UniProt ID: [P21912](#)

Cytogenetics: 1p36.13

Domains: fer2

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: Complex II of the respiratory chain, which is specifically involved in the oxidation of succinate, carries electrons from FADH to CoQ. The complex is composed of four nuclear-encoded subunits and is localized in the mitochondrial inner membrane. The iron-sulfur subunit is highly conserved and contains three cysteine-rich clusters which may comprise the iron-sulfur centers of the enzyme. Sporadic and familial mutations in this gene result in paragangliomas and pheochromocytoma, and support a link between mitochondrial dysfunction and tumorigenesis. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG203182