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Product datasheet for SC127816

SOD2 (NM_000636) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SOD2 (NM_000636) Human Untagged Clone
Tag:	Tag Free
Symbol:	SOD2
Synonyms:	GClnc1; IPO-B; IPOB; Mn-SOD; MNSOD; MVCD6
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC127816 sequence for NM_000636 edited (data generated by NextGen Sequencing)

ATGTTGAGCCGGGCAGTGTGCGGCACCAGCAGGCAGCTGGCTCCGGTTTTGGGGTATCTG
GGCTCCAGGCAGAAGCACAGCCTCCCCGACCTGCCCTACGACTACGGCGCCCTGGAACCT
CACATCAACGCGCAGATCATGCAGCTGCACCACAGCAAGCACCACGCGGCCTACGTGAAC
AACCTGAACGTCACCGAGGAGAAGTACCAGGAGGCGTTGGCCAAGGGAGATGTTACAGCC
CAGATAGCTCTTCAGCCTGCACTGAAGTTCAATGGTGGTGGTCATATCAATCATAGCATT
TTCTGGACAAACCTCAGCCCTAACGGTGGTGGAGAACCCAAAGGGGAGTTGCTGGAAGCC
ATCAAACGTGACTTTGGTTCCTTTGACAAGTTTAAGGAGAAGCTGACGGCTGCATCTGTT
GGTGTCCAAGGCTCAGGTTGGGGTTGGCTTGGTTTCAATAAGGAACGGGGACACTTACAA
ATTGCTGCTTGTCCAAATCAGGATCCACTGCAAGGAACAACAGGCCTTATTCCACTGCTG
GGGATTGATGTGTGGGAGCACGCTTACTACCTTCAGTATAAAAATGTCAGGCCTGATTAT
CTAAAAGCTATTTGGAATGTAATCAACTGGGAGAATGTAACTGAAAGATACATGGCTTGC
AAAAAGTAA

Clone variation with respect to NM_000636.2

View online »

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000636 unedited
GCGGCCGCGAATTCGGCACCAGTGCTCCCCGCGCTTTCTTAAGGCCCGCGGGCGGCGCAG
GAGCGGCACTCGTGGCTGTGGTGGCTTCGGCAGCGGCTTCAGCAGATCGGCGGCATCAGC
GGTAGCACCAGCACTAGCAGCATGTTGAGCCGGGCAGTGTGCGGCACCAGCAGGCAGCTG
GCTCCGGTTTTGGGGTATCTGGGCTCCAGGCAGAAGCACAGCCTCCCCGACCTGCCCTAC
GACTACGGCGCCCTGGAACCTCACATCAACGCGCAGATCATGCAGCTGCACCACAGCAAG
CACCACGCGGCCTACGTGAACAACCTGAACGTCACCGAGGAGAAGTACCAGGAGGCGTTG
GCCAAGGGAGATGTTACAGCCCAGATAGCTCTTCAGCCTGCACTGAAGTTCAATGGTGGT
GGTCATATCAATCATAGCATTTTCTGGACAAACCTCAGCCCTAACGGTGGTGGAGAACCC
AAAGGGGAGTTGCTGGAAGCCATCAAACGTGACTTTGGTTCCTTTGACAAGTTTAAGGAG
AAGCTGACGGCTGCATCTGTTGGTGTCCAGGCTCAGGTTGGGGTTGGCTTGGTTTCATAA
GGAACGGNGACACTTACAAATTGCTGCTTGTCCAATCAGGATCCACTGCAGGGAACACAG
GCCTTATTCCACTGCTGGGGATTNGATGTGTGGGAGCACGCTTACTACCTTTCAGTATAA
ATGTCAGGCCTGA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000636 unedited
CCCCATTCGTTTGGACCGTCGGCCGCAATCTACGATCGAGTTTTTTTTTTTTTTTTTGA
TGGTTGACAGATTCTTTTATTAACAGTCAAAAACTTCACACAGATTGGAAAATAAATGTT
TTCTTCAATGAATAATCAAACAAAAATTATCCAGGACCTTATAGGGTTTTCAGTATGTAC
CAGGCTTGATGCACATCTTAGAAGACAGGACATTATCTTGCTGGGATCATTAGGGTATGA
CTGAAAGTGAGAAACAGTAATTTGTAAAACATTTACCTAATAATAGCTTTCCCAAACAGT
ACTTCCCCTGGAATTAAAACAGGAAATACAATTTATGTTTATACGTGGTTTTAGATATGA
CTCAATATACATAGATTTTAACTTTATGGTTTGGTATTACTTTTTTAAAGGCGCTCAATA
GAAATTCAAATCTCACTTTAAGACCATGAATTTCAAGTTGCAATGAAGTGTACAATAAAG
TTGTGATTTCTCAACATCAAAGTTTAATTATTACAAAATAGTTCAAGCAACAGATAGAAT
TTCAAAAACAGTATTTGCTTTGCTTCCTTGTTTTGCTCCAACACTAATCATGCTGAGGTT
TTTGAAGCACAGCTATGACTAGGGCAGGCACTGCTGATTCAGTCACAAAAACCCTTCTTG
GATGAACAATACTTGGTCTTTTCAGAAGAAAAGCCATTTTACCTTTTCTATTTCTATTAT
GAAAAACAGAGCTAAACAATTTTTGTATTTTTGTTGAAGAACCGGGGTTTTACCCCGTTT
GGCCACCGCTGGTCCCGAACATCCTTAAGGGGTTTTGCCTGCCCTTGGCTTCCCAAGGGT
TTGGATCACAAAGGCGAGTTACCCCGCCCAGCCCTTAACAATTTTAAAGGTCTCTTTTTC
CCCACAAGCATTAAACTCTTAGTTGGCAAACCCCTTAACCCTA

Restriction Sites: NotI-NotI

ACCN: NM_000636

Insert Size: 4300 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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

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_000636.2, NP_000627.2
RefSeq Size:	1593 bp
RefSeq ORF:	669 bp
Locus ID:	6648
UniProt ID:	P04179
Cytogenetics:	6q25.3
Domains:	sodfe
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Huntington's disease
Gene Summary:	This gene is a member of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that forms a homotetramer and binds one manganese ion per subunit. This protein binds to the superoxide byproducts of oxidative phosphorylation and converts them to hydrogen peroxide and diatomic oxygen. Mutations in this gene have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer. Alternative splicing of this gene results in multiple transcript variants. A related pseudogene has been identified on chromosome 1. [provided by RefSeq, Apr 2016] Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (A). Both variants 1 and 2 encode the same isoform (A). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.