

Product datasheet for **SC323760**

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:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_000636.2 CTTCGGCAGCGGCTTCAGCAGATCGGCGGCATCAGCGGTAGCACCAGCACTAGCAGCATG TTGAGCCGGGCAGTGTGCGGCACCAGCAGCAGCTGGCTCCGGTTTTGGGGTATCTGGGC TCCAGGCAGAAGCACAGCCTCCCGACCTGCCCTACGACTACGGCGCCCTGGAACCTCAC ATCAACGCGCAGATCATGCAGCTGCACCACAGCAAGCACCACGCGGCCTACGTGAACAAC CTGAACGTCAACGAGGAGAAGTACCAGGAGGCGTTGGCCAAGGGAGATGTTACAGCCAG ATAGCTTTCAGCCTGCACTGAAGTTCAATGGTGGTGGTCATATCAATCATAGCATTTTT TGGACAAACCTCAGCCCTAACGGTGGTGGAGAACCCAAAGGGGAGTTGCTGGAAGCCATC AAACGTGACTTTGGTTCCTTTGACAAGTTAAGGAGAAGCTGACGGCTGCATCTGTTGGT GTCCAAGGCTCAGGTTGGGGTTGGCTTGGTTTCAATAAGGAACGGGGACACTTACAAATT GCTGCTTGTTCCAATCAGGATCCACTGCAAGGAACAACAGGCCTTATTCCACTGCTGGGG ATTGATGTGTGGGAGCAGCTTACTACCTTCAGTATAAAAATGTCAGGCCTGATTATCTA AAAGCTATTTGGAATGTAATCAACTGGGAGAATGTAAGTAAAAGATACATGGCTTGCAAA AAGTAAACCACGATCGTTATGCTGATCATACCCTAATGATCCCAGCAAGATAACGTCCTG TCTTCTAAGATGTGCATCAAGCCTGGTACATACTGAAAACCTATAAGGTCCTGGATAAT TTTTGTTGATTATTCATTGAAGAAACATTTATTTCCAATTGTGTGAAGTTTTTGACTG TTAATAAAGAATCTGTCAACCATCAAAAAAAAAAAAAAAAAA
Restriction Sites:	ECoRI-NOT
ACCN:	NM_000636



[View online »](#)

OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	<p>This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.</p>
Components:	<p>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).</p>
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:	<p>NM_000636.2, NP_000627.2</p>
RefSeq Size:	<p>1593 bp</p>
RefSeq ORF:	<p>669 bp</p>
Locus ID:	<p>6648</p>
UniProt ID:	<p>P04179</p>
Cytogenetics:	<p>6q25.3</p>
Domains:	<p>sodfe</p>
Protein Families:	<p>Druggable Genome, Transcription Factors</p>
Protein Pathways:	<p>Huntington's disease</p>

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.