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# Product datasheet for SC312085

## SOD2 (BC016934) Human Untagged Clone

### Product data:

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| **Product Type:** | Expression Plasmids |
| **Product Name:** | SOD2 (BC016934) Human Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | SOD2 |
| **Synonyms:** | indophenoloxidase B; IPO-B; manganese-containing superoxide dismutase; manganese superoxide dismutase; mangano-superoxide dismutase; Mn-SOD; MNSOD; Mn superoxide dismutase; OTTHUMP00000017530; OTTHUMP00000017531; superoxide dismutase 2, mitochondrial |
| **Mammalian Cell Selection:** | None |
| **Vector:** | pCMV6-XL5 |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |

**Fully Sequenced ORF:**

>OriGene sequence for BC016934 edited
GTGGTGGCTTCGGCAGCGGCTTCAGCAGATCGGCGGCATCAGCGGTAGCACCAGCACTAG
CAGCATGTTGAGCCGGGCAGTGTGCGGCACCAGCAGGCAGCTGGCTCCGGCTTTGGGGTA
TCTGGGCTCCAGGCAGAAGCACAGCCTCCCCGACCTGCCCTACGACTACGGCGCCCTGGA
ACCTCACATCAACGCGCAGATCATGCAGCTGCACCACAGCAAGCACCACGCGGCCTACGT
GAACAACCTGAACGTCACCGAGGAGAAGTACCAGGAGGCGTTGGCCAAGGGTAGGTTCCA
GGCTGAGCGGCGGGAGGCAGTCCCCGGCAGAGGCGACCCCAGGGAGCCAGGCCCCATACG
GACGGGCCTCTCCGTGGAGGAGAACTCGCTTCGTATTTGTACCGGTTCCGAGTTTTCCAG
GCACGATAGTCTCTCTTTTAAACACATGGTCTACCTCATTGTAGAAGGAGTGCCTCGATG
GGTTTGAACACACTTCTGTCATCTCAGGGAACTTGGGGTCCTGCGAAGGAGCTTGCCTTA
CTGTTGTGAGCCACATTCCGTTACACATATTGCCAGCACTGGTGAATTGTAGGGCCTGAA
AAGAAAGCTCTACTGTGTCACTCGTTTTTTTTGCAAATTGAAATTGTTCTTGTTGTATAA
TATGCTTTGGGGAAATGTTTGGTCTCTCAGGTAGGTGTGCCAGCCGTTTGCAGGAGGGCT
GAGAGCGCCTGTCCACTGGTGGCCAGACATCATCGGGTCCGCAGGTGTCTCTGAGTGTCA
GGGTCACCTCCTGATAGAAGTGGGAGTGGTGTCTTACTGCCAGGTCACACTGAAGGTGGG
AGACAGGAGGACACTACTCCGTGCTAGGAACCATGGTCCTTGTCATCTTCCTGAGAGCAA
ACGGGGTCGGGACTCCAGCCTAGGACTTGGAGACTCCCTGCATCCCCAGCTACCCTGCAG
GTGAAACTTCACTGAGCCCACTTGACTTCAGGTGGGAGAGGAGGAGGCACACCGTTGTGG
TGTGCGTTACCAAAAAAGCAGTAACCTAACTGTGGAACAGTTCAGGATCTTTAGACTTGA
TACTTTTCTTGATTTCCCTTAGGGGTCAAAGTTCACAAGGAAAATAGCCCTTTAGTGGGA
AACTGAAACAGGCTTGTTTTTATTTACTATTTACTCATATTTGTAATGCAATTAAAATAT
ATGTTGTTAACTTTTTTTTTTTTTTCTCAAGAGCTCGGTTGATAAAACCAGGGGTATGTG
GACTTTTTGAGTCTGTGCCTTTTGGGGGTGTGTATGGGAATGTTATGTTTTAACATTTTT
TACAAAATAGTATTGTCTTTTTAATTTATTCGTTAGTGGTTTGCACAAGGAAGATAATCG
ATAGTCATGTTTTTTAGACGCTCTGTATTGCTTGGTAAGCTACGTAGTAAAAAATGTTTA
CTTTTCCTTAAATGTTTTGAATTTCGGGGTTATGAAATTTGTTGAGTAATTTTTAGACAG
TCACATCTTGTTGACTGGAGGCATCTAGTGGAAAAATGCAGTATTTCAGCCTGATTGTGT
TTGAAGTAAATGATTAAAAGAGGAGGAAGTTACCACAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** BC016934

**Insert Size:** 1600 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** The ORF of this clone has been fully sequenced and found to be a perfect match to BC016934.

**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).

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| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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:** | BC016934.1, AAH16934.1 |
| **RefSeq Size:** | 1617 bp |
| **RefSeq ORF:** | 1617 bp |
| **Locus ID:** | 6648 |
| **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] |