

Product datasheet for SC118157

Superoxide Dismutase 3 (SOD3) (NM_003102) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Superoxide Dismutase 3 (SOD3) (NM_003102) Human Untagged Clone
Tag:	Tag Free
Symbol:	Superoxide Dismutase 3
Synonyms:	EC-SOD
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118157 sequence for NM_003102 edited (data generated by NextGen Sequencing)

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ATGCTGGCGCTACTGTGTTCTCCTGCCTGCTCCTGGCAGCCGGTGCCTCGGACGCCTGGACG
GGCGAGGACTCGGCGGAGCCAACTCTGACTCGGCGGAGTGGATCCGAGACATGTACGCC
AAGGTCACGGAGATCTGGCAGGAGGTCATGCAGCGGCGGGACGACGACGGCACGCTCCAC
GCCGCCTGCCAGGTGCAGCCGTGGCCACGCTGGACGCCGCGCAGCCCCGGGTGACCCGGC
GTCGTCTCTTCCGGCAGCTTGGCCCCGCGCCAAGCTCGACGCCTTCTTCGCCCTGGAG
GGCTTCCCGACCGAGCCGAACAGCTCCAGCCGCGCCATCCACGTGCACCAGTTCGGGGAC
CTGAGCCAGGGCTGCGAGTCCACCGGGCCCACTACAACCGCTGGCCGTGCCGACCCCG
CAGCACCCGGGCGACTTCGGCAACTTCGCGGTCCGCGACGGCAGCCTCTGGAGGTACCGC
GCCGGCTGGCCGCTCGCTCGCGGGCCCGCACTCCATCGTGGGCCGGGCGGTGGTGTGTC
CACGCTGGCGAGGACGACCTGGGCCGCGCGGCAACCAGGCCAGCGTGGAGAACGGGAAC
GCGGGCCGGCGGCTGGCCTGCTGCGTGGTGGGCGTGTGCGGGCCCGGGCTCTGGGAGCGC
CAGGCGCGGGGAGCACTCAGAGCGCAAGAAGCGGCGGCGGAGAGCGAGTGAAGGCCGCC
TGA

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Clone variation with respect to NM_003102.2
172 g=>a



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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_003102 unedited NTTTTAGGTCAGAAATGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGCTGG GTGCAGCTCTCTTTTCAGGAGAGAAAGCTCTCTTGGAGGAGCTGGAAAGTGCCCGACTCC AGCCATGCTGGCGCTACTGTGTTCTCCTGCCTGCTCCTGGCAGCCGGTGCCTCGGACGCCTG GACGGGCGAGGACTCGGCGGAGCCAACTCTGACTCGGCGGAGTGGATCCGAGACATGTA CGCCAAGGTCACGGAGATCTGGCAGGAGTTCATGCAGCGGCGGGACGACGACGGCACGCT CCACGCCGCTGCCAGGTGCAGCCGTCGGCCACGCTGGACGCCGCGCAGCCCCGGGTGAC CGGCGTCGTCCTCTTCCGGCAGCTTGCGCCCGCGCCAAGCTCGACGCCTTCTTCGCCCT GGAGGGCTTCCCAGCCGACCGAAGAGCTCCAGCCGCGCCATCCACGTGCACCAAGTTCGG GGACCTGAGCCAGGGCTGCGAGTCCACCGGGCCCCACTACAACCCGCTGGCCGTGCCGA CCCGCAGACCCGGGCGACTTCGGCAACTTCGCGGTCCGCGACGGCAGCCTCTGGAGGTA CCGCGCCGGCCTGGCCGCTGNTNCGGGGCCCGCACTCATNCGTGGGGCCGGGCCCGTG GTCGTCCACGCTGGCGAGGACACTGNGCCGCGCGGCAACCAGGCCAGCGTGGAGAAC GGGAAACGGGGCCGGCGGCTGGCTGCTGCTGGTGGGCGTGTGCGGGCCCCGGCTCTGG GAGCGCCAGGCGCCGAGCACTCAGAGCGCAAGAAGCGGGCGCGGAGAGCGAGTGAAG GCCGCTGGACGCCGCCCCACCGCGCGGCCAGGGACCCCCGAGGC
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_003102 unedited AAACAGCTATGACCGCGCCGAATCTATAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTT TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGAAATGGGGAATTTTAAACCGGA ACCCAAAGGTTGCCAAACTTTCCCCAAAGAAACCCCTCAGGGGGGGGGCGGGGGGTG CCAAACACCTTAAACCCGGGGATTTGGCCTGGCTTCCCTTTCCCGGGCTGGCTTGCC CGGGAACGGGGGGG
Restriction Sites:	NotI-NotI
ACCN:	NM_003102
Insert Size:	1500 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).
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_003102.1 , NP_003093.1
RefSeq Size:	1984 bp
RefSeq ORF:	723 bp
Locus ID:	6649
UniProt ID:	P08294

Cytogenetics: 4p15.2

Domains: sodcu

Protein Families: Druggable Genome, Secreted Protein

Gene Summary: This gene encodes a member of the superoxide dismutase (SOD) protein family. SODs are antioxidant enzymes that catalyze the conversion of superoxide radicals into hydrogen peroxide and oxygen, which may protect the brain, lungs, and other tissues from oxidative stress. Proteolytic processing of the encoded protein results in the formation of two distinct homotetramers that differ in their ability to interact with the extracellular matrix (ECM). Homotetramers consisting of the intact protein, or type C subunit, exhibit high affinity for heparin and are anchored to the ECM. Homotetramers consisting of a proteolytically cleaved form of the protein, or type A subunit, exhibit low affinity for heparin and do not interact with the ECM. A mutation in this gene may be associated with increased heart disease risk. [provided by RefSeq, Oct 2015]