

Product datasheet for **SC119081**

Catalase (CAT) (NM_001752) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Catalase (CAT) (NM_001752) Human Untagged Clone
Tag:	Tag Free
Symbol:	Catalase
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119081 sequence for NM_001752 edited (data generated by NextGen Sequencing)

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ATGGCTGACAGCCGGGATCCCGCCAGCGACCAGATGCAGCACTGGAAGGAGCAGCGGGCC
GCGCAGAAAGCTGATGTCCTGACCACTGGAGCTGGTAACCCAGTAGGAGACAACTTAAT
GTTATTACAGTAGGGCCCCGTGGGCCCTTCTTGTTCAGGATGTGGTTTTCACTGATGAA
ATGGCTCATTTTGACCGAGAGAGAATTCCTGAGAGAGTTGTGCATGCTAAAGGAGCAGGG
GCCTTTGGCTACTTTGAGGTCACACATGACATTACCAAATACTCCAAGGCAAAGGTATTT
GAGCATATTGAAAGAAGACTCCCATCGCAGTTCGGTTCCTCACTGTTGCTGGAGAATCG
GGTTCAGCTGACACAGTTCGGGACCCTCGTGGGTTTGCAGTGAAATTTTACACAGAAGAT
GGTAACTGGGATCTCGTTGAAATAACACCCCCATTTTCTTCATCAGGGATCCCATTG
TTTCCATCTTTTATCCACAGCCAAAAGAGAAATCCTCAGACACATCTGAAGGATCCGGAC
ATGGTCTGGGACTTCTGGAGCCTACGTCCTGAGTCTCTGCATCAGGTTTCTTTCTGTTC
AGTGATCGGGGATTCCAGATGGACATCGCCACATGAATGGATATGGATCACATACTTTC
AAGCTGGTTAATGCAAATGGGGAGGCAGTTTATTGCAAATTCATTATAAGACTGACCAG
GGCATCAAAAACCTTTCTGTTGAAGATGCGGCGAGACTTCCAGGAAGATCCTGACTAT
GGCATCCGGGATCTTTTTAACGCCATTGCCACAGGAAAGTACCCCTCCTGGACTTTTTAC
ATCCAGGTCATGACATTTAATCAGGCAGAACTTTTCCATTTAATCCATTCGATCTCACC
AAGTTTTGGCCTCACAAGGACTACCCTCTCATCCAGTTGGTAAACTGGTCTTAAACCGG
AATCCAGTTAATTACTTTGCTGAGGTTGAACAGATAGCCTTCGACCCAAGCAACATGCCA
CCTGGCATTGAGGCCAGTCTGCACAAAATGCTTCAGGGCCGCCTTTTGCCTATCCTGAC
ACTCACCGCCATCGCCTGGGACCAATTATCTTCATATACCTGTGAACGTGCCCTACCGT
GCTCGAGTGGCCAACACCAGCGTATGGCCCGATGTGCATGCAGGACAATCAGGGTGGT
GCTCAAATACTACCCCAACAGCTTTGGTGTCTCCGGAACAACAGCCTTCTGCCCTGGAG
CACAGCATCCAATATTCTGGAGAAGTGGGAGATTCAACACTGCCAATGATGATAACGTT
ACTCAGGTGCGGGCATTCTATGTGAACGTGCTGAATGAGGAACAGAGAAACGTCTGTGT
GAGAACATTGCCGGCCACCTGAAGGATGCACAAATTTTTCATCCAGAAGAAAGCGGTCAAG
AACTTCACTGAGGTCCACCCTGACTACGGGAGCCACATCCAGGCTCTTCTGGACAAGTAC
AATGCTGAGAAGCCTAAGAATGCGATTACACCTTTGTGCAGTCCGGATCTCACTTGGCG
GCAAGGGAGAAGGCAAATCTGTGA
    
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Clone variation with respect to NM_001752.3
1167 c=>t

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001752 unedited

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GGTTGNAATTTGTATACGACTACTATAGGGCGGCCGCGCAATTCGCACGAGGACGAGCC
GAGGCCTCTGCAGTGTCTGCACAGCAAACCGCACGCTATGGCTGACAGCCGGGATCCC
GCCAGCGACCAGATGCAGCACTGGAAGGAGCAGCGGGCCGCGCAGAAAGCTGATGTCCTG
ACCACTGGAGCTGGTAACCCAGTAGGAGACAACTTAATGTTATTACAGTAGGGCCCCGT
GGGCCCTTCTTGTTCAGGATGTGGTTTTCACTGATGAAATGGCTCATTTTGACCGAGAG
AGAATTCCTGAGAGAGTTGTGCATGCTAAAGGAGCAGGGCCCTTTGGCTACTTTGAGGTC
ACACATGACATTACCAAATACTCCAAGGCAAAGGTATTTGAGCATATTGAAAGAAGACT
CCCATCGCAGTTCGGTTCCTCACTGTTGCTGGAGAATCGGGTTCAGCTGACACAGTTCGG
GACCCTCGTGGGTTTGCAGTGAAATTTTACACAGAAGATGGTAACTGGGATCTCGTTGGA
AATAACACCCCCATTTTCTTCATCAGGGATCCCATTGTTTCCATCTTTTATCCACAGC
CAAAAGAGAAATCCTCAGACACATCTGAAGGATCCGGACATGGTCTGGGACTTCTGGAGC
CTACGTCCTGAGTCTCTGCATCAGTTTCTTTCTTGTTCAGTGTCCGGGATTCAGAT
GGACATCGCCACATGAATGGATATGGATCACATACTCTCCAGCCTGTTTAAATGCCAAATG
GGGAGGCAGTTTATTGCAAATTCATTATAAGACTGACCACGGCATCAAAAACCTTTCTG
TTGAAGATCCGGCGAGACTTTCCANGAAGAATCTGACTATGGCATCCGGGGATCTTTTT
ACCGCCATTGCCCCAGNAAAGTCN
    
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Protein Pathways: Amyotrophic lateral sclerosis (ALS), Metabolic pathways, Methane metabolism, Tryptophan metabolism

Gene Summary: This gene encodes catalase, a key antioxidant enzyme in the bodies defense against oxidative stress. Catalase is a heme enzyme that is present in the peroxisome of nearly all aerobic cells. Catalase converts the reactive oxygen species hydrogen peroxide to water and oxygen and thereby mitigates the toxic effects of hydrogen peroxide. Oxidative stress is hypothesized to play a role in the development of many chronic or late-onset diseases such as diabetes, asthma, Alzheimer's disease, systemic lupus erythematosus, rheumatoid arthritis, and cancers. Polymorphisms in this gene have been associated with decreases in catalase activity but, to date, acatalasemia is the only disease known to be caused by this gene. [provided by RefSeq, Oct 2009]