

Product datasheet for **SC127084**

OAZ1 (NM_004152) Human Untagged Clone

Product data:

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|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | OAZ1 (NM_004152) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | OAZ1 |
| Synonyms: | AZ1; AZI; OAZ |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL5</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| Fully Sequenced ORF: | >NCBI ORF sequence for NM_004152, the custom clone sequence may differ by one or more nucleotides |

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TTTTGCGAACGGCGAGCAGCGGGCGGGCGGGAGAGACGCAGCGGAGGTTTTCTGGTTTCGGACCCCA  
GCGGCCGGATGGTAAAATCCTCCCTGCAGCGGATCCTCAATAGCCACTGCTTCGCCAGAGAGAAGGAAGG  
GGATAAACCCAGCGCCACCATCCACGCCAGCCGACCATGCCGCTCTAAGCCTGCACAGCCGCGGGCGG  
AGCAGCAGTGAGAGTCCAGGGTCTCCCTCCACTGCTGTAGTAACCCGGGTCCGGGGCTCGGTGGTGCT  
CCTGATGCCCTCACCCACCCCTGAAGATCCCAGGTGGGCGAGGGAATAGTCAGAGGGATACAATCTTT  
CAGCTAACTTATTCTACTCCGATGATCGGCTGAATGTAACAGAGGAACTAACGTCCAACGACAAGACGAG  
GATTCTCAACGTCCAGTCCAGGCTCACAGACGCCAAACGCATTAAGTGGCGAACAGTGTGAGTGGCGGC  
AGCCTCTACATCGAGATCCCGGGCGGGCGCTGCCCGAGGGGAGCAAGGACAGCTTTCAGTTCCTCTGG  
AGTTCGCTGAGGAGCAGCTGCGAGCCGACCATGTCTTCATTTGCTTCCACAAGAACC GCGAGGACAGAGC  
CGCCTTGCTCCGAACCTTCAGCTTTTTGGGCTTTGAGATTGTGAGACCGGGGCATCCCCTTGTCCTCAAG  
AGACCCGACGCTTGCTTCATGGCCTACACGTTCCGAGAGAGAGTCTTCGGGAGAGGAGGAGGAGTAGGGCC  
GCCTCGGGGTGGGCATCCGGCCCTGGGGCCACCCCTTGTCAGCCGGGTGGGTAGGAACCGTAGACTCG  
CTCATCTCGCCTGGGTTGTCCGCATGTTGTAATCGTGCAATAAACGCTCACTCCGAATTAGCGGTGTA  
TTCTTTGAAGTTAATATTGTGTTTGTGATACTGAAGTATTTGCTTTAATTCTAAATAAAAAATTTATATT  
TTACTTTTTTATTGCTGGTTTAAGATGATTCAGATTATCCTTGTACTTTGAGGAGAAGTTTCTTATTGG  
AGTCTTTTGAAACAGTCTTAGTCTTTTAACTTGAAAGATGAGGTATTAATCCCCTCCATTGCTCTCCA  
AAAGCCAATAAAGTGATTACACCCGA
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| 5' Read Nucleotide Sequence: | >OriGene 5' read for NM_004152 unedited TCCCCCCCCCTACCCACTTACTATAGGGCGGCCGGAATTCGGCACGAGGGGCGGCGGC GCGGAGAGACGCAGCGGAGGTTTTCTGGTTTCGGACCCAGCGGCCGGATGGTAAATC CTCCCTGCAGCGGATCCTCAATAGCCACTGCTTCGCCAGAGAGAAGGAAGGGGATAAACC CAGCGCCACCATCCACGCCAGCCGACCATGCCGCTCCTAAGCCTGCACAGCCGCGGCGG CAGCAGCAGTGAGAGTTCCAGGGTCTCCCTCCACTGCTGTAGTAACCCGGTCCGGGGCC TCGGTGGTGCTCCTGATGCCCCCTACCCACCCCTGAAGATCCCAGGTGGCCGAGGCCACA CCCACAGGCCACCCACCCCGCCCGCCCTCACCCCACTCCCATGATCCCCCGTTGCC CCTCCCCCGCCCTGCCACCCCGCTTCCCCCGCCCGCCCGCCACTCCCTCCCCCGCTCT TCTCTCCCCCATCCACTCATCTTCCCCCGCTCACACCCCGCTTTTCTCACCTCCTT ACCATCTCACCCCGCCACCCCGCCCGCTCCCCCACCCCACTTCTCCACC CCCCACTCACCTCCCCCTCCTCCTTCTTTCCATCATCGCCTCCCCCTACCCCGCC TCCCCCGCATCCCCACCCGCTTTTATTCTCCCCACTCCCCCGCTCCTCGT CCCCCACTATCCACCCCTCCATCCCTCACCACCTCTCCTCTCCCCCGCCCGCCCGCC CCTCCCCCGCACCCGCCCCCAGATCTCAATCCCTATCCCGTCCCCCGCCATCCG CTCTCCATCCCCCAACCCCTCCCCCGCTCCCATCCCTTCGCCCCCGCTCCCCCT CCTTCAATT |
| Restriction Sites: | NotI-NotI |
| ACCN: | NM_004152 |
| 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: | <u>NM_004152.1</u> , <u>NP_004143.1</u> |
| RefSeq Size: | 986 bp |
| RefSeq ORF: | 408 bp |
| Locus ID: | 4946 |
| UniProt ID: | <u>P54368</u> |
| Cytogenetics: | 19p13.3 |

Gene Summary:

The protein encoded by this gene belongs to the ornithine decarboxylase antizyme family, which plays a role in cell growth and proliferation by regulating intracellular polyamine levels. Expression of antizymes requires +1 ribosomal frameshifting, which is enhanced by high levels of polyamines. Antizymes in turn bind to and inhibit ornithine decarboxylase (ODC), the key enzyme in polyamine biosynthesis; thus, completing the auto-regulatory circuit. This gene encodes antizyme 1, the first member of the antizyme family, that has broad tissue distribution, and negatively regulates intracellular polyamine levels by binding to and targeting ODC for degradation, as well as inhibiting polyamine uptake. Antizyme 1 mRNA contains two potential in-frame AUGs; and studies in rat suggest that alternative use of the two translation initiation sites results in N-terminally distinct protein isoforms with different subcellular localization. Alternatively spliced transcript variants have also been noted for this gene. [provided by RefSeq, Dec 2014]

Transcript Variant: This variant (1) encodes the longer isoform (1). CCDS Note: The expression of the protein represented in this CCDS ID is auto-regulated by polyamine-enhanced translational frameshifting. During translation, a +1 frameshift occurs following codon 68, just preceding a termination codon, thereby enabling translation of the remaining portion of the protein (aa 69-228) in a different reading frame, as experimentally shown for the conserved rat ortholog (PMID:7813017).