

Product datasheet for **SC324495**

Antizyme inhibitor 1 (AZIN1) (NM_148174) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Antizyme inhibitor 1 (AZIN1) (NM_148174) Human Untagged Clone
Tag:	Tag Free
Symbol:	Antizyme inhibitor 1
Synonyms:	AZI; AZI1; AZIA1; OAZI; OAZIN; ODC1L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_148174.2
 ATCGCGGCCGCGAGTTTTTCTTTTTTCTTCTGCCGTCGCCTTCTCTGCCTTCTCATCC
 TTTCTCGCTCTGCTGCTCTGCAGTGTGACGAGTCCGAATCCTCTTCCCACCCAGCCCGCG
 CCTTTCTCTTTTGCCTGCGCTGTTCTATTTCTCCTTCGGCCGCCGCCCACTGCTGCA
 CACAGCTGGTGTGCGTGCCGCGCTTTTACCCCAAGTCGTTCCCGCAGCCTATGGCCAG
 GCCGCTTGGGTATTTCTGCTCAAGGTAACCACATCCCTCTTAAAAAATCCGCCGAAAA
 AGAGAAGACGCTTTACCCGACTTTTGGGCCGTTATCTCACGGCAACTTCTGACCAAG
 TATACAACCTACCCAGAGGCCCTAGGAGAAGTGTGTATAGAGAGCAGTTGCACTTCAACG
 CTGAGCCACCTTGGGAACCTAGCTGATGATAGGGGGTTCATCTCCCAACTTGCCATT
 TTGTTGCATATTCTAAGGACCCAGACATAGGCTTGGTGGCCGCTCTTGTCTTTCTG
 TTTATGACTTTCCGCTTTGTGGAATACGGCTGAGATGAAAGGATTTATTGATGATGCAA
 CTACTCCGTTGGCCTGTTGGATGAAGGAACAACTTGGAAATGTTATTGATAACTATGT
 TTATGAACATACCCTGACAGGAAAAATGCATTTTTTGTGGGAGATCTGGAAAGATTGT
 GAAGAAACACAGTCAATGGCAGAATGTAGTGGCTCAGATAAAGCCATTCTACACAGTGAA
 GTGCAACTCTGCTCCAGCTGACTTGGATTTTGGCAGCTCTTGAACCGGATTTGCTTG
 TTCCAGTAAAAATGAAATGGCTTTAGTGAAGAGTTGGGTGTACCTCCAGAAAACATTAT
 TTACATAAGTCCCTGCAAGCAAGTGTCTCAGATAAAGTATGCAGCAAAAGTTGGAGTGAA
 TATCCTGACATGTGACAAATGAAATTGAATTGAAGAAAATGCACGTAATCACCCAAATGC
 CAAGGTCTTACTACATATTGCAACAGAAGATAATTTGGAGGTGAAGAGGGTAACATGAA
 GTTTGGCACTACCTGAAGAAGTGTAGGCATCTCTTGGAAATGTGCTAAGGAACTTGATGT
 CCAATAAATGGGGTTAAATTTTCATGTTTCGAGTGCTTGCAGAAATCTCAAGTATATGT
 ACATGCTCTATCTGATGCTCGATGTGTGTTGACATGGCTGGAGAAATGGCTTTACGAT
 GAACATGTTAGACATTGGTGGAGATTACGGGAAGTGAATTTCAATTGGAAGAGGTTAA
 TCATGTTATCAGCCCTCTGTTGGATATCTACTTCTGAAGGATCTGGTGTAAAGATAAT
 TTCAGAACCCGGAAGCTACTATGTGCTTCTGCATTTACTCGCAGTTAATATCATAGC
 AAAGAAAGTTGTTGAAAATGATAAATTTCCCTCTGGAGTAGAAAAACCGGAAGTATGA
 ACCAGCCTTCATGTATTATGAATGATGGTGTATGGTTCTTTTGAAGTAACTGTC
 TGAGGACTTAAATACCATTCCAGAGGTTACAAGAAATACAAGGAAGATGAGCCTCTGTT
 TACAAGCAGCCTTTGGGGTCCATCCTGTGATGAGCTTGATCAAATTTGGAAAGCTGCT
 TCTTCTGAGCTGAATGTGGGAGATTGGCTTATCTTTGATAACATGGGAGCAGATTCTTT
 CCATGAACCATCTGCTTTAATGATTTTACAGAGCCAGCCATTTATTACATGATGTCATT
 CAGTGATTGGTATGAGATGCAAGATGCTGGAATTACTTCAGACTCAATGATGAAGAACTT
 CTCTTTGTGCCTTCTTGCACTCAGCTGAGCCAAGAAGACAGCTTTTCCGCTGAAGCTTA
 AACAGGCATTAACGCTTCTTTAGATCTGAAGTTGCAGGTTAAGCTTGTCTGGTCAACATT
 CCAGTGTGGAAAAATAATTTAAACAATCTTATTCTCTTAATTCTTTTGGCAACAAAAACT
 ATTAGTAATAGCTATTTGGGACCAGACAAAAATCAGCTTTCATCTATAATTCATTGGGGAT
 AATGGGAGATTTAGATAATGTATCCAGATTTAACCTACCAGTTTGTCTACCCCTTAAG
 CGTTTAAAAATAAATATGCAACAAAAATGGATGACTTAGTGGAGATGGAAGCCCATTAAT
 GGGTCCCCATTAATCGTTTACATACAAGAACACAGTTTTTATACTAAGGATTTGTGTT
 TAAAGTCTGTAAAGTTCATGTCTTTCACCCAGATATATCAAATGTTAGAAGACCAGTGT
 GACTTCATTAGATAACGTTTGTGATTTTGAATGTGTAATTTGTGCTTTGAACTGTAG
 TTTAATAAATGTAATTTGCATCATAGTATTTGTTGACCTAATGTAACCCCTGTATGATT
 GCAATAAATTTTGTGTAGATTTTAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_148174

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:	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.
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_148174.2 , NP_680479.1
RefSeq Size:	4202 bp
RefSeq ORF:	1347 bp
Locus ID:	51582
UniProt ID:	O14977
Cytogenetics:	8q22.3
Domains:	Orn_Arg_deC_N
Protein Families:	Druggable Genome
Gene Summary:	<p>The protein encoded by this gene belongs to the antizyme inhibitor family, which plays a role in cell growth and proliferation by maintaining polyamine homeostasis within the cell. Antizyme inhibitors are homologs of ornithine decarboxylase (ODC, the key enzyme in polyamine biosynthesis) that have lost the ability to decarboxylase ornithine; however, retain the ability to bind to antizymes. Antizymes negatively regulate intracellular polyamine levels by binding to ODC and targeting it for degradation, as well as by inhibiting polyamine uptake. Antizyme inhibitors function as positive regulators of polyamine levels by sequestering antizymes and neutralizing their effect. This gene encodes antizyme inhibitor 1, the first member of this gene family that is ubiquitously expressed, and is localized in the nucleus and cytoplasm. Overexpression of antizyme inhibitor 1 gene has been associated with increased proliferation, cellular transformation and tumorigenesis. Gene knockout studies showed that homozygous mutant mice lacking functional antizyme inhibitor 1 gene died at birth with abnormal liver morphology. RNA editing of this gene, predominantly in the liver tissue, has been linked to the progression of hepatocellular carcinoma. Alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, Sep 2014]</p> <p>Transcript Variant: This variant (2) lacks an internal 5' non-coding exon, thus has a shorter 5' UTR compared to variant 1. Variants 1 and 2 encode the same isoform (1).</p>