

Product datasheet for **RC237733**

Antizyme inhibitor 1 (AZIN1) (NM_001301668) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Antizyme inhibitor 1 (AZIN1) (NM_001301668) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AZIN1
Synonyms:	AZI; AZI1; AZIA1; OAZI; OAZIN; ODC1L
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC237733 representing NM_001301668 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAAGGATTTATTGATGATGCAAACACTCCGTTGGCCTGTTGGATGAAGGAACAAACCTTGAAATG
TTATTGATAACTATGTTTATGAACATACCCTGACAGGGAAAAATGCATTTTTTGTGGGAGATCTTGAAA
GATTGTGAAGAAACACAGTCAATGGCAGAATGTAGTGGCTCAGATAAAGCCATTCTACACAGTGAAGTGC
AACTCTGCTCCAGCTGACTTGAGATTTGGCAGCTCTTGAACCGGATTTGCTTGTCCAGTAAAATG
AAATGGCTTTAGTGAAGAGTTGGGTGTACCTCCAGAAAACATTTTACATAAGTCCTTGAAGCAAGT
GTCTCAGATAAAGTATGCAGCAAAAGTTGGAGTGAATATCCTGACATGTGACAATGAAATGAAATGAAG
AAAATTGCACGTAATCACCCAAATGCCAAGGCTTACTACATATTGCAACAGAAGATAATTTGGAGGTG
AAGAGGGTAACATGAAGTTTGGCACTACCCTGAAGAACTGTAGGCATCTCTTGAATGTGCTAAGGAACT
TGATGTCCAAATAATTGGGGTTAAATTTTCATGTTTCGAGTGCTTGCAAAGAATCTCAAGTATATGTACAT
GCTCTATCTGATGCTCGATGTGTGTTGACATGGCTGGAGAAATGGCTTTACGATGAACATGTTAGACA
TTGGTGGAGGATTCACGGAACTGAATTTCAATTGGAAGAGTTAATCATGTTATCAGCCCTCTGTTGGA
TATCTACTTTCCGAAGGATCTGGTGTAAAGATAATTTCAAGAACCCGGAAGCTACTATGTGCTCTTGCA
TTTACACTCGCAGTTAATATCATAGCAAAGAAAGTTGTTGAAAATGATAAATTTCCCTCTGGAGTAGAAA
AAACCGGAAGTGAACCCAGCCTTCATGTATTATATGAATGATGGTGTGTTATGGTTCTTTTGAAGTAA
ACTGTCTGAGGACTTAAATACCATTCCAGAGGTTCAAGAAAACAAGGAAGATGAGCCTCTGTTTACA
AGCAGCCTTTGGGGTCCATCCTGTGATGAGCTTTTCCGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC237733 representing NM_001301668
 Red=Cloning site Green=Tags(s)

MKGFIDDANYSVGLLDEGTNLGNVIDNYVEHTLTGKNAFFVGD LGKIVKKHSQWQNVVAQIKPFYTVKC
 NSAPAVLEILAALGTGFACSSKNEMALVQELGVPPENIIYISPCQVVSQIKYAAKVGVNILTC DNEIELK
 KIARNHPNAKVL LHIATEDNIGGEEGNMKGFTTLKNCRHLLLECAKELDVQIIGVKFHVSSACKESQYVVH
 ALSDARCVFDMAGEIGFTMNMLDIGGGFTGTEFQLEEVNHVISPLLDIYFPEGSGVKI ISEPGSYVVSSA
 FTLAVNIIAKKVVENDKFP SGVEKTGSDEPAFMYMNDGVYGSFASKLSEDLN T IPEVHKKYKED EPLFT
 SSLWGPSCDELFR

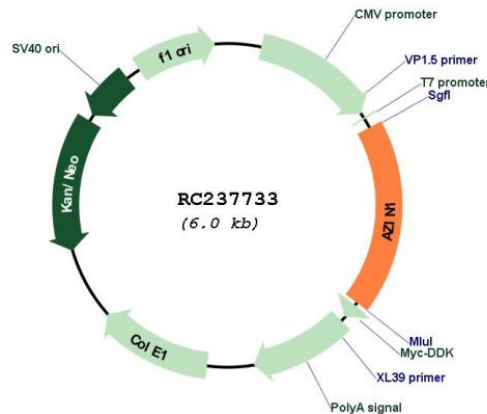
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001301668

ORF Size:	1089 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_001301668.2
RefSeq Size:	3991 bp
RefSeq ORF:	1092 bp
Locus ID:	51582
Cytogenetics:	8q22.3
Protein Families:	Druggable Genome
MW:	40.3 kDa
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>