

Product datasheet for **RC200022**

Antizyme inhibitor 1 (AZIN1) (NM_015878) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Antizyme inhibitor 1 (AZIN1) (NM_015878) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Antizyme inhibitor 1
Synonyms:	AZI; AZI1; AZIA1; OAZI; OAZIN; ODC1L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC200022 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGAAAGGATTTATTGATGATGCAAACACTCCGTTGGCCTGTTGGATGAAGGAACAACCTTGAAATG
 TTATTGATAACTATGTTTATGAACATACCTGACAGGAAAAATGCATTTTTTGTGGGAGATCTTGAAA
 GATTGTGAAGAAACACAGTCAATGGCAGAATGTAGTGGCTCAGATAAAGCCATTCTACACAGTGAAGTGC
 AACTCTGCTCCAGCTGTACTTGAGATTTTGGCAGCTCTTGAACCGGATTTGCTTGTCCAGTAAAAATG
 AAATGGCTTTAGTGAAGAGTTGGGTGTACCTCCAGAAAAACATTTTACATAAGTCCTTGAAGCAAGT
 GTCTCAGATAAAGTATGCAGCAAAAGTTGGAGTGAATATCCTGACATGTGACAATGAAATGAATTGAAG
 AAAATTGCACGTAATCACCCAAATGCCAAGGTCTTACTACATATTGCAACAGAAGATAATATTGGAGGTG
 AAGAGGGTAACATGAAGTTTGGCACTACCTGAAGAACTGTAGGCATCTCTTGAATGTGCTAAGGAACT
 TGATGTCAAATAATTGGGGTAAATTTTCATGTTTCGAGTGCTTGCAGAAATCTCAAGTATATGTACAT
 GCTCTATCTGATGCTCGATGTGTGTTGACATGGCTGGAGAAATTTGGCTTACGATGAACATGTTAGACA
 TTGGTGGAGGATTCACGGGAACGAATTTCAATTGGAAGAGGTTAATCATGTTATCAGCCCTCTGTTGGA
 TATCTACTTTCTGAAGGATCTGGTGTAAAGATAATTTGAGAACCAGGAACTACTATGTGTCTTCTGCA
 TTTACTACTCGCAGTTAATATCATAGCAAAGAAAGTTGTTGAAAATGATAAATTTCCCTCTGGAGTAGAAA
 AAACCGGAAGTGATGAACCAGCCTTCATGTATTATGAATGATGGTGTATGTTTCTTTGCAAGTAA
 ACTGTCTGAGGACTTAAATACCATTCCAGAGGTTACAAGAAATACAAGGAAGATGAGCCTCTGTTTACA
 AGCAGCCTTTGGGTCCATCCTGTGATGAGCTTGATCAAATTGTGAAAGCTGTCTTCTTCTGAGCTGA
 ATGTGGGAGATTGGCTTATCTTTGATAACATGGGAGCAGATTCTTCCATGAACCATGCTTTTTAATGA
 TTTTCAGAGGCCAGCCATTTATTACATGATGTCATTCAGTATTGGTATGAGATGCAAGATGCTGGAATT
 ACTTCAGACTCAATGATGAAGAATTCTTCTTTGTGCCTTCTTGCAATTCAGCTGAGCCAAGAAGACAGCT
 TTTCCGCTGAAGCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200022 protein sequence
 Red=Cloning site Green=Tags(s)

MKGFIDDANYSVGLLDEGTNLGNVIDNYVEHTLTGKNAFFVGD LGKIVKKHSQWQNVVAQIKPFYTVKC
 NSAPAVLEILAALGTGFACSSKNEMALVQELGVPPENIIYISPKQVSQIKYAAKGVNILTCDNEIELK
 KIARNHPNAKVL LHIATEDNIGGEEGNMKGFTTLKNCRHLLLECAKELDVQIIGVKFHVSSACKESQYVYH
 ALSDARCVFDMAGEIGFTMNMLDIGGGFTGTEFQLEEVNHVISPLLDIYFPEGSGVKIIEP GSYVYVSSA
 FTLAVNIIAKKVENDKFP SGVEKTGSDEPAFMYMNDGVYGSFASKLSEDLNTIPEVHKYKED EPLFT
 SSLWGPSCDEL DQIVESCLLPELNVGDWLI FDNMGADSFHEPSAFNDFQRP AIYYMMSFSDWYEMQDAGI
 TDSMMKNFFV PSCIQLSQEDSFSAEA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6153_d11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_015878

ORF Size: 1344 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

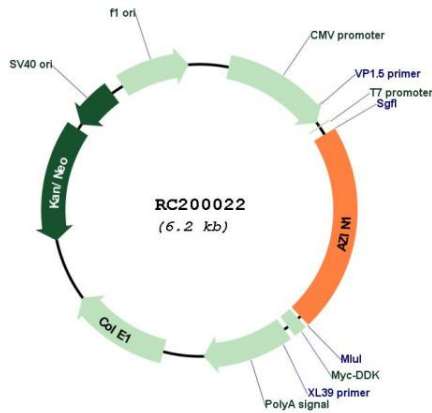
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

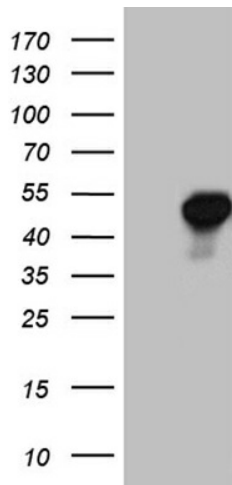
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_015878.5
RefSeq Size:	4385 bp
RefSeq ORF:	1347 bp
Locus ID:	51582
UniProt ID:	O14977
Cytogenetics:	8q22.3
Domains:	Orn_Arg_deC_N
Protein Families:	Druggable Genome
MW:	49.5 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>

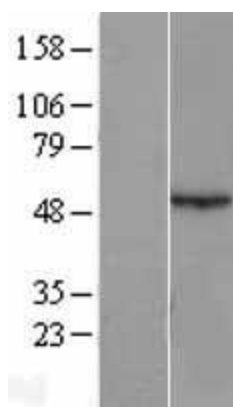
Product images:



Circular map for RC200022



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY AZIN1 (Cat# RC200022, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-AZIN1 (Cat# [TA810908]). Positive lysates [LY402474] (100ug) and [LC402474] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402474]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200022 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).