

Product datasheet for **RR206887**

Azin1 (NM_022585) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Azin1 (NM_022585) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Azin1
Synonyms:	Oazi; Oazin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR206887 representing NM_022585
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAAGGATTTATTGACGATGCAAACACTCCGTTGGCCTGTTGGATGAAGGAACAACCTTGGAAATG
 TTATTGATAACTATGTTTATGAACATACCCTGACAGGAAAAAATGCATTTTTTGTGGGGATCTTGGGAA
 GATCGTGAAGAAGCACAGTCAGTGGCAGAACGTGGTGGCTCAGATAAAGCCATTTTACATGGTGAAGTGC
 AACTCCACTCCAGCCGACTGGAGATCTTGGCAGCTCTTGGAACTGGATTTGCTTGTCCAGCAAAAATG
 AAATGGCTTTAGTGAAGAATTAGGCGTATCTCCAGAAAACATCATTTATAACAAGCCTTGAAGCAAGC
 ATCTCAGATAAAGTACGACGAAAAGTTGGAGTAAATATTATGACATGTGACAATGAAGTTGAATTAAG
 AAAATTGCGAGGAATCACCCAAATGCCAAGGTCTTACTACATATTGCAACAGAAGATAATATTGGAGGTG
 AAGATGGTAATATGAAGTTTGGCACTACACTGAAGAACTGTAGGCATCTTTTGGAAATGTGCCAAGGAACT
 TGATGTCCAAATAATTGGGGTAAATTTTCAATTTTCAAGTGCTTGCAAAGAATATCAAGTCTATGTCCAT
 GCCTGTCTGATGCTCGATGTGTGTTTGCATGGCTGGGAGTTTGGCTTTACAATGAACATGTTAGACA
 TCGGTGGAGGCTTACAGGAACTGAAATTCAGTTGGAAGAGGTTAATCATGTTATCAGTCCCTCTGTTGGA
 TATTTACTTCCCTGAAGGATCTGGCATTGAGATCATTTCCGAACCTGGAAGCTACTATGTATCTTCTGCA
 TTTACGCTTGCAGTCAATATTATTGCTAAGAAAGTTGTTGAAAATGATAAATTATCCTCTGGAGTAGAAA
 AAAATGGGAGTGACGAGCCAGCCTTCGTGACTACATGAATGACGGTGTATGTTTCTTTTGAAGTAA
 GCTTTCTGAGGACTTAAATACTGTTCCAGAGGTTACAAGAAATACAAGGAAGTAGCCCTCTGTTTACA
 AGCAGCCTTTGGGGTCCATCCTGTGACGAGCTTGATCAAATTGTGAAAGTTGTCTTCTCCTGAGCTGA
 GCGTGGGAGATTGGCTTATCTTTGATAACATGGGAGCAGATTCTTGCACGGACCGTCTGCTTTTACG
 CACTCAGAGGCCAGCTATTTATTTTATGATGTCACACTCAGTGATTGGTATGAGATGCAAGATGCTGGAATT
 ACTTCAGATGCAATGATGAAAACTTCTTCTTGCACCCTCTTGCAATTCAGCTGAGCCAAGAAGACAAC
 TCTCCACTGAAGCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR206887 representing NM_022585
 Red=Cloning site Green=Tags(s)

MKGFIDDANYSVGLLDEGTNLGNVIDNYVEHTLTGKNAFFVGD LGKIVKKHSQWQNVVAQIKPFYMKC
 NSTPAVLEILAALGTGFACSSKNEMALVQELGVSPENIIYTSPCKQASQIKYAAKVG VNIIMTCDNEVELK
 KIARNHPNAKVL LHIATEDNIGGEDGNMFGTTLKNCRHLLLECAKELDVQIIGVKFHISSACKEYQYVVH
 ALSDARCVFDMAGEFGFTMNMLDIGGGFTGTEIQLEEVNHVISPLLDIYFPEGSGIQIISEPGSYVSSA
 FTLAVNIIAKKVENDKLS SSGVEKNGSDEPAFVYVMNDGVYGSFASKLSEDLNTPVEVHKYKED EPLFT
 SSLWGPSCDEL DQIVESCLLPEL SVGDWLI FDNMGADSLHGPSAFSDTQRP AIYFMMSLSDWYEMQDAGI
 TSDAMMKNFFFAPSCIQLSQEDNF STEA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

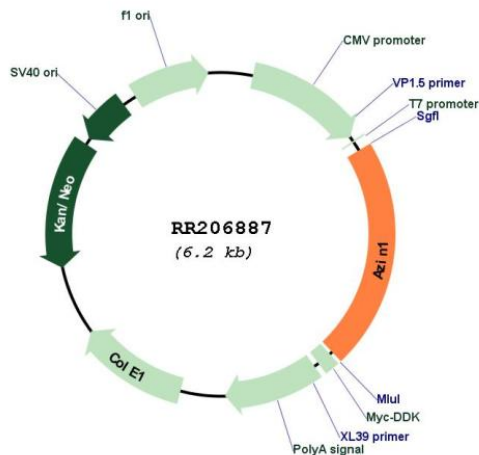
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_022585

ORF Size: 1344 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:

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_022585.2](#), [NP_072107.2](#)

RefSeq Size: 4344 bp

RefSeq ORF: 1347 bp

Locus ID: 58961

Cytogenetics: 7q22

MW: 49.3 kDa

Gene Summary: 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. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Sep 2014]