

Product datasheet for **RN216695**

Azin1 (NM_001301702) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Azin1 (NM_001301702) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Azin1
Synonyms:	Oazi; Oazin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN216695 representing NM_001301702
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAAGGATTTATTGACGATGCAAACACTCCGTTGGCCTGTTGGATGAAGGAACAACCTTGGAAATG
 TTATTGATAACTATGTTTATGAACATACCCTGACAGGAAAAAATGCATTTTTTGTGGGGATCTTGGGAA
 GATCGTGAAGAAGCACAGTCAGTGGCAGAACGTGGTGGCTCAGATAAAGCCATTTACATGGTGAAGTGC
 AACTCCACTCCAGCCGACTGGAGATCTTGGCAGCTCTTGGAACTGGATTTGCTTGTCCAGCAAAAATG
 AAATGGCTTTAGTGAAGAATTAGGCGTATCTCCAGAAAACATCATTTATAACAAGCCTTGAAGCAAGC
 ATCTCAGATAAAGTACGCAGCAAAAAGTTGGAGTAAATATTATGACATGTGACAATGAAGTTGAATTAAG
 AAAATTGCGAGGAATCACCCAAATGCCAAGGTCTTACTACATATTGCAACAGAAGATAATATTGGAGGTG
 AAGATGGTAATATGAAGTTTGGCACTACACTGAAGAACTGTAGGCATCTTTTGAATGTGCCAAGGAACT
 TGATGTCCAAATAATTGGGGTTAAATTTTCATTTTCAAGTGCTTGCAAAGAATATCAAGTCTATGTCCAT
 GCCTGTCTGATGCTCGATGTGTGTTTGCATGGCTGGGGAGTTTGGCTTACAATGAACATGTTAGACA
 TCGGTGGAGGCTTACAGGAACTGAAATTCAGTTGGAAGAGGTTAATCATGTTATCAGTCCCTCTGTTGGA
 TATTTACTTCCCTGAAGGATCTGGCATTGAGATCATTTCCGAACCTGGAAGCTACTATGTATCTTCTGCA
 TTTACGCTTGCAATATTATTGCTAAGAAAGTTGTTGAAAATGATAAATTATCCTCTGGAGTAGAAA
 AAAATGGGAGTGACGAGCCAGCCTTCGTGACTACATGAATGACGGTGTATGGTTCTTTTGAAGTAA
 GCTTTCTGAGGACTTAAATACTGTTCCAGAGGTTACAAGAAATACAAGGAAGATGAGCCTCTGTTTACA
 AGCAGCCTTTGGGGTCCATCCTGTGACGAGCTTGATCAAATTGTGAAAGTTGTCTTCTCCTGAGCTGA
 CGGTGGGAGATTGGCTTATCTTTGATAACATGGGAGCAGATTCTTGCACGGACCGTCTGCTTTTAGTGA
 CACTCAGAGGCCAGCTATTTATTTTCATGATGTCACACTCAGTGATTGGTATGAGATGCAAGATGCTGGAATT
 ACTTCAGATGCAATGATGAAAACTTCTTCTTGCACCCTCTGCATTCAGCTGAGCCAAGAAGACAAC
 TCTCCACTGAAGCT**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_001301702
- Insert Size:** 1347 bp
- 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:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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_001301702.1](#), [NP_001288631.1](#)

RefSeq Size: 4186 bp

RefSeq ORF: 1347 bp

Locus ID: 58961

Cytogenetics: 7q22

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]

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 protein. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.