

Product datasheet for **MC227288**

Azin1 (NM_001301688) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Azin1 (NM_001301688) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Azin1
Synonyms:	1700085L02Rik; AZI; O; Oazi; Oazin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC227288 representing NM_001301688 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAAGGATTTATTGACGATGCGAACTACTCCGTTGGCCTGTTGGATGAAGGAACAAACCTTGAAATG
TTATTGATAACTATGTTTATGAACATACCCTGACAGGAAAAAATGCATTTTTTGTGGGGATCTTGGGAA
GATCGTGAAGAAGCACAGTCAGTGGCAGACCGTGGTGGCTCAGATAAAGCCGTTTTACACGGTGAAGTGC
AACTCCACTCCAGCCGTGCTTGAGATCTTGGCAGCTCTTGGAACTGGGTTTGCTTGTCCAGCAAAAATG
AAATGGCTTTAGTGCAAGAATTGGGTGTATCTCCAGAAAACATCATTTTTACAAGTCCTTGTAAAGCAAGT
GTCTCAGATAAAGTATGCAGCAAAAAGTTGGAGTAAATATTATGACATGTGACAATGAGATTGAATTTAAAG
AAAATTGCAAGGAATCACCCAAATGCCAAGGTCTTACTACATATTGCAACAGAAGATAATTTGGAGGTG
AAGATGGTAACATGAAGTTTGGCACTACACTGAAGAATTGTAGGCATCTTTGGAATGTGCCAAGGAACT
TGATGTCCAAATAATTGGGGTTAAATTTTCATGTTTCAAGTGCTTGCAAAGAATATCAAGTATATGTACAT
GCCCTGTCTGATGCTCGATGTGTGTTGACATGGCTGGAGAGTTTGGCTTTACAATGAACATGTTAGACA
TCGGTGGAGGCTTACAGGAAGTAAAATTCAGTTGGAAGAGGTTAATCATGTTATCAGTCTCTGTTGGA
TATTTACTTCCCTGAAGGATCTGGCATTAGATAATTTTCAGAACCTGGAAGCTACTATGTATCTTCTGCG
TTTACACTTGCAGTCAATATTATTGCTAAGAAAAGTTGTTGAAAATGATAAATTTTCTCTGGAGTAGAAA
AAAATGGGAGTGATGAGCCAGCCTTCGTGATTACATGAATGATGGTGTATGTTTCTTTTGGCAGTAA
GCTTTCTGAGGACTTAAATACCATTCAGAGGTTACAAGAAAACAAGGAAGATGAGCCTCTGTTTACA
AGCAGCCTTTGGGGTCCATCCTGTGATGAGCTTTTCCATGA

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001301688



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Insert Size:	1092 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:	<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:	<u>NM_001301688.1, NP_001288617.1</u>
RefSeq Size:	4620 bp
RefSeq ORF:	1092 bp
Locus ID:	54375
UniProt ID:	<u>O35484</u>
Cytogenetics:	15 B3.1

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. 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]

Transcript Variant: This variant (3) is alternatively spliced in the 3' coding region, which causes a frame-shift, compared to variant 1. The resulting isoform (2) is shorter with a distinct C-terminus compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.