

Product datasheet for MR222916

Azin2 (NM_172875) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Azin2 (NM_172875) Mouse Tagged ORF Clone

Tag: Myc-DDK

Symbol: Azin2

Synonyms: 4933429I20Rik; Ad; Adc; AZ; Azi2; B930082O19; Od; ODC-p; Odcp

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

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>MR222916 ORF sequence

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGCTGGCTATCTGAGTGAATCGGACTTTGTGATGGTGGAGGAGGGCTTCAGCACCCGGGATCTGCTGG AGGAGCTCACTCTGGGGGCCTCCCAGGCCACCTCGGGCAAGGTGGCTGCCTTCTTCGTGGCCGACCTGGG TGCTGTAGTGAGGAAGCACTTCTGCTTTCTGAAGCACCTGCCTCGAGTCCGGCCTTTTTATGCTGTCGGG TGCAACAGCAGCCTGGGCGTGCTGAAGGTTCTAGCCGAACTGGGGCTGGGCTTCAGCTGTGCCAACAAGG CAGAGATGGAGTTGGTCCAGCACATTGGTGTCCCTGCCAGTAAGATCATCTGTGCCAACCCCTGTAAGCA AGTTGCACAGATCAAGTATGCTGCCAAGCACGGGGTGAGGCTGCTGAGCTTCGACAATGAAGTGGAGCTG GCCAAGGTGGTCAAGAGCCACCCCAGTGCCAAGATGGTTCTGTGCATTGCTACCCAGGACTCCCACTCTC TGAATCACCTGAGCCTGAGGTTTGGGGCGTCGCTGAAATCCTGCAGACATCTGCTCGAGAACGCCAAGAA GAGCCACGTGGAGGTGGGGTGTGAGTTTTCACATTGGCAGTGGCTGTCCTGACCCTCAGGCCTATGCC CAGTCCATCGCGGATGCTAGGCTGGTGTTTCAGATGGGCGAGGAGCTGGGCCACACGATGAACATCCTGG ACCTTGGCGGCGGCTTTCCTGGCTTAGAGGGAGCCAAAGTGAGATTTGAAGAGATGGCCTCAGTAATTAA CTCAGCCTTGGACCTGTACTTCCCTGAGGGCTGCGGTGTGGACATCCTTGCTGAGCTGGGACGCTACTAC AAGAGCAAACCGGCGCAGCCCCTAAGAGCATCGTGTACTACCTTGATGAGGGCGTTTATGGGGTCTTCAA CTCAGTCCTGTTTGACAACACCTGCCCCACCCCGCCCTGCAGAAGAAACCATCTGCGGATCAACCACTG TACAGCAGCAGCCTGTGGGGCCCAGCAGTTGAAGGCTGCGACTGTGTGGCTGAGGGCCTGTGGCTGCCGC AACTACAAGTAGGGGACTGGCTGGTCTTTGACAACATGGGTGCTTACACCGTGGACACAAAGTCCCTCCT TGGGGGGACCCAGGCCCGCAGAGTCACTTATGCCATGTCCCGGCTAGCCTGGGAAGCGCTTCGAGGGCAG CTGTTGCCTGCAGAAGAAGACCAGGACGCCGAGGGTGTGTGCAAACCTCTGTCCTGCGGCTGGGAGATCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR222916 protein sequence
Red=Cloning site Green=Tags(s)

MAGYLSESDFVMVEEGFSTRDLLEELTLGASQATSGKVAAFFVADLGAVVRKHFCFLKHLPRVRPFYAVG CNSSLGVLKVLAELGLGFSCANKAEMELVQHIGVPASKIICANPCKQVAQIKYAAKHGVRLLSFDNEVEL AKVVKSHPSAKMVLCIATQDSHSLNHLSLRFGASLKSCRHLLENAKKSHVEVVGVSFHIGSGCPDPQAYA QSIADARLVFQMGEELGHTMNILDLGGGFPGLEGAKVRFEEMASVINSALDLYFPEGCGVDILAELGRYY VTSAFTVAVSIVAKREVLDQASREEQTGAAPKSIVYYLDEGVYGVFNSVLFDNTCPTPALQKKPSADQPL YSSSLWGPAVEGCDCVAEGLWLPQLQVGDWLVFDNMGAYTVDTKSLLGGTQARRVTYAMSRLAWEALRGQ LLPAEEDQDAEGVCKPLSCGWEITDTLCVGPVFTPASIM

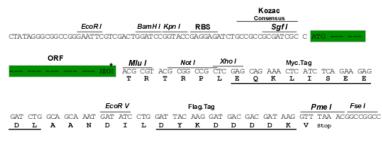
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-Mlul



Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

ACCN: NM_172875

ORF Size: 1380 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.

RefSeg: NM 172875.4, NP 766463.1

 RefSeq Size:
 2084 bp

 RefSeq ORF:
 1380 bp

 Locus ID:
 242669

 UniProt ID:
 Q8BVM4



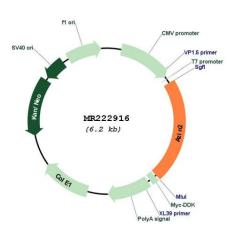
Cytogenetics: 4 D2.2

MW: 49.5 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 2, the second member of this gene family. Like antizyme inhibitor 1, antizyme inhibitor 2 interacts with all 3 antizymes and stimulates ODC activity and polyamine uptake. However, unlike antizyme inhibitor 1, which is ubiquitously expressed and localized in the nucleus and cytoplasm, antizyme inhibitor 2 is predominantly expressed in the brain and testis and localized in the endoplasmic reticulum-golgi intermediate compartment. Recent studies indicate that antizyme inhibitor 2 is also expressed in specific cell types in ovaries, adrenal glands and pancreas, and in mast cells. The exact function of this gene is not known, however, available data suggest its role in cell growth, spermiogenesis, vesicular trafficking and secretion. There has been confusion in literature and databases over the nomenclature of this gene, stemming from an earlier report that a human cDNA clone (identical to ODCp/AZIN2) had arginine decarboxylase (ADC) activity (PMID:14738999). Subsequent studies in human and mouse showed that antizyme inhibitor 2 was devoid of arginine decarboxylase activity (PMID:19956990). Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Sep 2014]

Product images:



Circular map for MR222916