

## **Product datasheet for MC225490**

## Oaz2 (NM\_001301307) Mouse Untagged Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** Oaz2 (NM\_001301307) Mouse Untagged Clone

Tag: Tag Free Symbol: Oaz2

Synonyms: AZ; AZ-; AZ-2; AZ2; Oaz; Oaz2-ps; Sez1; Sez15

Mammalian Cell

Selection:

Neomycin

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

Fully Sequenced ORF: >MC225490 representing NM\_001301307

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGATAAACACCCAGGACAGTATTTTGCCGTTGAGTAAGTGTCCCCAGCTCCAGTGCTGCAGGCACATTG
TTCCAGGGCCTCTGTGGTGCTCCATGATAAACACCCAGGACAGTATTTTGCCGTTGAGTAAGTGTCCCCA

GCTCCAGTGCTGCAGGCACATTGTTCCAGGGCCTCTGTGGTGCTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_001301307

**Insert Size:** 186 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.



**OriGene Technologies, Inc.** 9620 Medical Center Drive, Ste 200

CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com



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, Dec 2014]

**RefSeq:** <u>NM 001301307.1</u>, <u>NP 001288236.1</u>

RefSeq Size: 1858 bp
RefSeq ORF: 568 bp
Locus ID: 18247
Cytogenetics: 9 C

**Gene Summary:** The protein encoded by this gene belongs to the ornithine decarboxylase antizyme family,

which plays a role in cell growth and proliferation by regulating intracellular polyamine levels. Expression of antizymes requires +1 ribosomal frameshifting, which is enhanced by high levels of polyamines. Antizymes in turn bind to and inhibit ornithine decarboxylase (ODC), the key enzyme in polyamine biosynthesis; thus, completing the auto-regulatory circuit. This gene encodes antizyme 2, the second member of the antizyme family. Like antizyme 1, antizyme 2 has broad tissue distribution, inhibits ODC activity and polyamine uptake, and stimulates ODC degradation in vivo; however, it fails to promote ODC degradation in vitro. Antizyme 2 is expressed at lower levels than antizyme 1, but is evolutionary more conserved, suggesting it likely has an important biological role. Studies also show different subcellular localization of antizymes 1 and 2, indicating specific function for each antizyme in discrete compartments of the cell. Alternatively spliced transcript variants have been found for this gene. [provided by

Transcript Variant: This variant (2) uses an alternate, in-frame acceptor splice site at the second exon compared to variant 1. The resulting isoform (2) is one amino acid shorter than isoform 1.