

## Product datasheet for **RN215712**

### Oaz2 (NM\_001301297) Rat Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Oaz2 (NM\_001301297) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Oaz2  
**Synonyms:** RGD1562933  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >RN215712 representing NM\_001301297  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**

ATGATAAACACCCAGGACAGTATTTGCCTTTGAGTAACTGTCCCGAGCTCCAGTGCTGCAGGCACATTG  
 TTCCAGGGCCTCTGTGGTGCTCCATGATAAACACCCAGGACAGTATTTGCCTTTGAGTAACTGTCCCA  
 GCTCCAGTGCTGCAGGCACATTGTTCCAGGGCCTCTGTGGTGCTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001301297  
**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.

**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).


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**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\_001301297.1, NP\_001288226.1

**RefSeq Size:** 1825 bp

**RefSeq ORF:** 568 bp

**Locus ID:** 501454

**Cytogenetics:** 8q24

**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 RefSeq, Dec 2014]

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.