

## Product datasheet for **RR215867**

### Oaz1 (NM\_001301048) Rat Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids

Product Name: Oaz1 (NM\_001301048) Rat Tagged ORF Clone

Tag: Myc-DDK

Symbol: Oaz1

Synonyms: Oaz; ODC-Az; ODCAC

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

Cell Selection: Neomycin

ORF Nucleotide Sequence: >RR215867 representing NM\_001301048

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

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGGTGAAATCCTCCCTGCAGCGGATCCTCAACAGCCACTGCTTCGCCAGAGAGAAAGAAGGGGACAAAC  
GCAGCGCCACGCTTCACGCCAGCCGACCATGCCGCTTCTTAGTCAGCACAGCCGCGCGGCTGCAGCAG  
CGAGAGGGTTGCCCTTCATTGCTGTAGTAACCTGGGTCCGGGGCCTCGGTGGTGTCCATGGTGAATCC  
TCCTGCAGCGGATCCTCAACAGCCACTGCTTCGCCAGAGAGAAAGAAGGGGACAAACGCAGCGCCACGC  
TTCACGCCAGCCGACCATGCCGCTTCTTAGTCAGCACAGCCGCGCGGCTGCAGCAGCAGAGGGTTGC  
CCTTCATTGCTGTAGTAACCTGGGTCCGGGGCCTCGGTGGTGTCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR215867 representing NM\_001301048

Red=Cloning site Green=Tags(s)

MVKSSLQRILNSHCFAREKEGDKRSATLHASRTMPLLQHSRGGCSSLERVALHCCSNLGPGRWCSMVKS  
SLQRILNSHCFAREKEGDKRSATLHASRTMPLLQHSRGGCSSLERVALHCCSNLGPGRWCS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

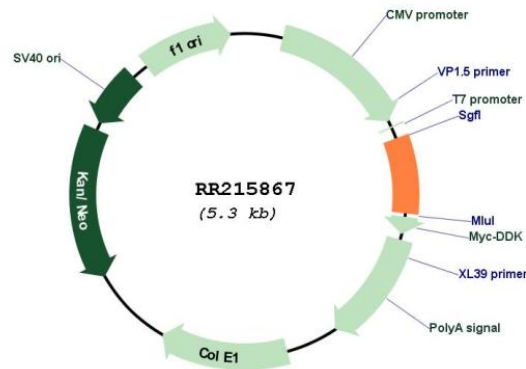


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## Cloning Scheme:



## Plasmid Map:



ACCN: NM\_001301048

ORF Size: 393 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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_001301048.1</a></u> , <u><a href="#">NP_001287977.1</a></u>
<b>RefSeq Size:</b>	1061 bp
<b>RefSeq ORF:</b>	679 bp
<b>Locus ID:</b>	25502
<b>Cytogenetics:</b>	7q11
<b>MW:</b>	14.5 kDa
<b>Gene Summary:</b>	<p>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 1, the first member of the antizyme family, that has broad tissue distribution, and negatively regulates intracellular polyamine levels by binding to and targeting ODC for degradation, as well as inhibiting polyamine uptake. Antizyme 1 mRNA contains two potential in-frame AUGs; and studies in rat suggest that alternative use of the two translation initiation sites results in N-terminally distinct protein isoforms with different subcellular localization. Alternatively spliced transcript variants have also been noted for this gene. [provided by RefSeq, Dec 2014]</p>