

Product datasheet for RN215722

Oaz1 (NM_001297557) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Oaz1 (NM_001297557) Rat Untagged Clone
Tag: Tag Free
Symbol: Oaz1
Synonyms: Oaz; ODC-Az; ODCAC
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN215722 representing NM_001297557
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGCTTCTTAGTCAGCACAGCCGGCGGCTGCAGCAGCGAGAGTTCTAGGGTTGCCCTTCATTGCT
GTAGTAACCTGGGTCCGGGGCTCGGTGGTCTCCATGCCGTTCTTAGTCAGCACAGCCGGCGGCTG
CAGCAGCGAGAGTTCTAGGGTTGCCCTTCATTGCTGTAGTAACCTGGGTCCGGGGCTCGGTGGTCTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001297557
Insert Size: 210 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_001297557.1](#), [NP_001284486.1](#)

RefSeq Size: 1067 bp

RefSeq ORF: 586 bp

Locus ID: 25502

Cytogenetics: 7q11

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 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]

Transcript Variant: This variant (1) encodes two isoforms resulting from the use of alternative in-frame translation initiation codons. The longer isoform (1, also known as 29 kDa form or AZ-1) is derived from an upstream AUG (at nt 80-82), whereas the shorter isoform (2, also known as 24.5 kDa form or AZ-2) is derived from a downstream AUG (at nt 179-181). This RefSeq represents the shorter isoform, which is found in the cytosol (PMID:16120325).