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Product datasheet for MR217445

Oaz3 (NM_016901) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Oaz3 (NM_016901) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Oaz3
Synonyms:	AZ; AZ-; Az-3; AZ3; Oaz; Oaz-t
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR217445 representing NM_016901
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

CTGCCTTGTAACAGGTCCCGCCCCTCTCTCTACTCCCTTTCTTATATCAAGAGGGGAAAAACACGGAACT
ATCTCTATCCATTCTGGTCACCATTCGCCTATTACCTCTACTGTTACAAATACCGGATCACCCTCCGGGA
GAAGATGCTGCCTTGTTGTTACAAAAGCATCACTTACAAGGAACAGGAGGACCTGACTCTCCGGCCCCAT
TGCTGCCTCCCGTGCTCCTGCCTCCCGTGCTCCTGCCTCCAGTGCTCCCTGCCTTGTAACAGGTCCCGCC
CCTCTCTCTACTCCCTTTCTTATATCAAGAGGGGAAAAACACGGAACTATCTCTATCCATTCTGGTCACC
ATTCGCCTATTACCTCTACTGTTACAAATACCGGATCACCCTCCGGGAGAAGATGCTGCCTTGTTGTTAC
AAAAGCATCACTTACAAGGAACAGGAGGACCTGACTCTCCGGCCCCATTGCTGCCTCCCGTGCTCCTGCC
TCCCGTGCTCCTGCCTCCAGTGCTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR217445 representing NM_016901
Red=Cloning site Green=Tags(s)

LPCNRSRPSLYSLSYIKRGKTRNYLYPFWSPFAYYLYCYKYRITLREKMLPCCYKSITYKEQEDLTLRPH
CCLPCSCLPCSCLQCSLPCNRSRPSLYSLSYIKRGKTRNYLYPFWSPFAYYLYCYKYRITLREKMLPCCY
KSITYKEQEDLTLRPHCCLPCSCLPCSCLQCS

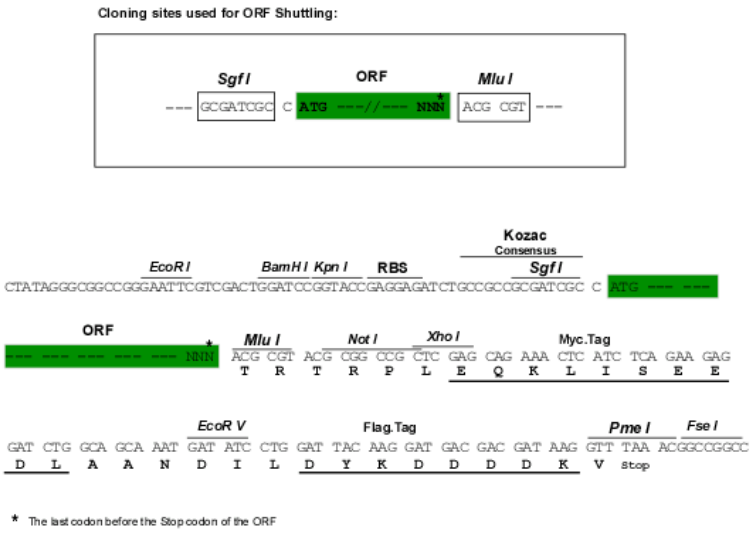
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9076_g04.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016901

ORF Size: 516 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.

RefSeq: NM_016901.3, NP_058597.2

RefSeq Size: 955 bp

RefSeq ORF: 733 bp

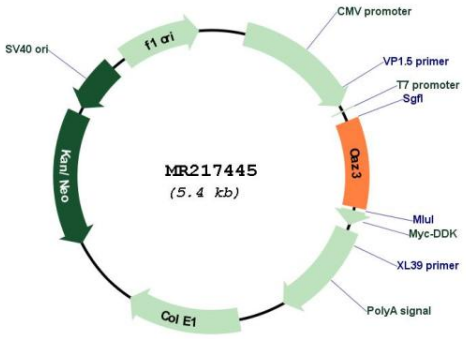
Locus ID: 53814

Cytogenetics: 3 F2.1

MW: 20.7 kDa

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 3, the third member of the antizyme family. Like antizymes 1 and 2, antizyme 3 inhibits ODC activity and polyamine uptake; however, it does not stimulate ODC degradation. Also, while antizymes 1 and 2 have broad tissue distribution, expression of antizyme 3 is restricted to haploid germ cells in testis, suggesting a distinct role for this antizyme in spermiogenesis. Antizyme 3 gene knockout studies showed that homozygous mutant male mice were infertile, and indicated the likely role of this antizyme in the formation of a rigid connection between the sperm head and tail during spermatogenesis. This transcript initiates translation from a non-AUG (CUG) codon that is highly conserved among the antizyme 3 orthologs. [provided by RefSeq, Dec 2014]

Product images:



Circular map for MR217445