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Product datasheet for RR215714

Oaz2 (NM_001109899) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Oaz2 (NM_001109899) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Oaz2
Synonyms:	RGD1562933
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RR215714 representing NM_001109899
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATAAACACCCAGGACAGTAGTATTTTGCCTTTGAGTAACTGTCCCCAGCTCCAGTGCTGCAGGCACA
TTGTTCCAGGGCCTCTGTGGTGCTCCGATGCCCCTCACCCACTGTCGAAGATCCCCGGTGGGCGAGGGGG
CGGCAGGGATCCTTCTCTCTCAGCTCTAATATATAAGGACGAGAAGCTCACTGTGACCCAGGACCTCCCT
GTGAATGATGGAAAACCTCACATCGTCCACTTCCAGTATGAGGTCACCGAGGTGAAGGTCTCTTCTTGGG
ATGCAGTCCTGTCCAGCCAGAGCCTGTTTGTAGAAATCCCAGATGGATTATTAGCTGATGGGAGCAAAGA
AGGATTGTTAGCACTGCTAGAGTTTGCTGAAGAGAAGATGAAAGTGAACTATGTCTTCATCTGCTTCAGG
AAGGGCCGAGAAGACAGAGCTCCACTCCTGAAGACCTTCAGCTTCTTGGGCTTTGAGATTGTACGTCCAG
GCCATCCCTGTGTCCCCTCTCGGCCAGATGTGATGTTCATGGTTTATCCCCTGGACCAGAACTTGTCCGA
TGAGGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR215714 representing NM_001109899
Red=Cloning site Green=Tags(s)

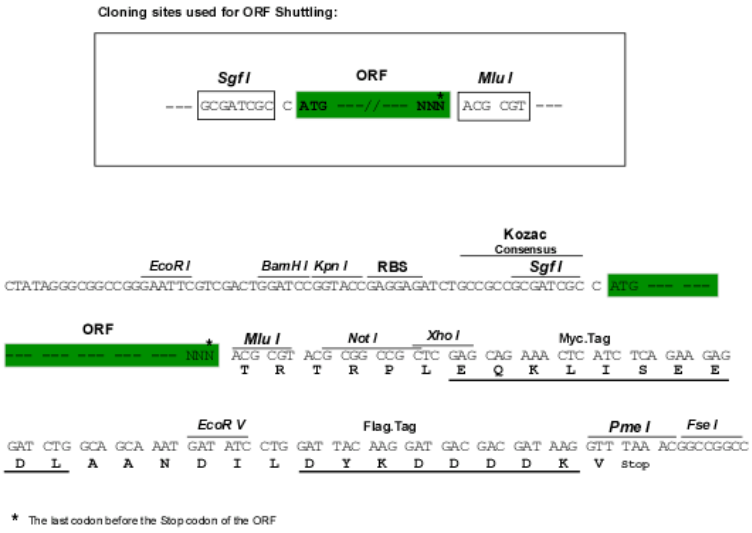
MINTQDSSILPLSNCPQLQCCRHIVPGPLWCSDAPHPLSKIPGGRGGGRDPSLSALIYKDEKLTVTQDLP
VNDGKPHIVHFQYEVTEVKVSSWDAVLSSQSLFVEIPDGLLADGSKEGLLALLEFAEEKMKVNYVFICFR
KGREDRAPLLKTFSFLGFEIVRPGHPCVPSRPDVMFMVYPLDQNLSDED

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001109899

ORF Size: 192 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_001109899.2, NP_001103369.1

RefSeq Size: 1828 bp

RefSeq ORF: 571 bp

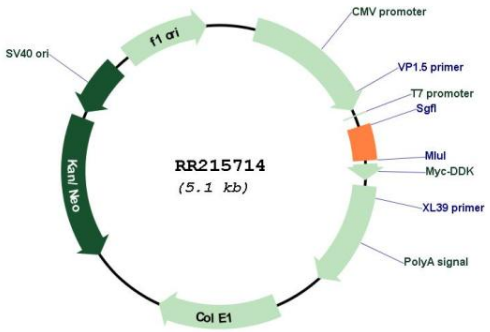
Locus ID: 501454

Cytogenetics: 8q24

MW: 7.1 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 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]

Product images:



Circular map for RR215714