

Product datasheet for RC229129

OAZ3 (NM_016178) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OAZ3 (NM_016178) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OAZ3
Synonyms:	AZ3; OAZ-t; TISP15
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC229129 representing NM_016178 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGCCGGAATTTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

CTGCCTTGTAAGAGGTGTCGCCCTCTGTCTACTCCCTTTCTTATATCAAGAGGGGAAAAACACGTAAC
ACCTCTACCCGATCTGGTCACCATACGCCTATTACCTTTACTGTTACAAGTACCGGATCACTCTCCGGGA
GAAGATGCTGCCTCGTTGTTATAAAGCATCACTTATAAGGAAGAGGAGGACTTGACACTCCAGCCCGT
TCCTGCCTCCAGTCTCCTGAGTCCCTAGTAGGCCTCCAGGAGGGCAAAGCACCAGCAGGTAACCAC
GACCAGCTAAAGAACTGTATTCGGCTGGAACTTGACGGTGCTGGCTACTGACCCCTGCTCCACCAGG
ACCCAGTACAGTTAGACTTTCACTTCCGCCTTACCTCCCAGACCTCTGCCATTGGCAGGCCTTCTCTG
TGACCGTCGACTTCTCCTGGATATCCCATATCAGGCCTTGATCAAGGCAACCGGAAAAGTTTGACTGCA
ACCCTGGAGTACGTGGAAGAGAAGACAAATGTGGACTCTGTGTTGTGAACCTCCAGAATGATCGGAACG
ACAGAGGTGCCCTGCTGCGGGCCTTCAGCTACATGGGCTTTGAGGTGGTCAGACCAGATCACCTGCCCT
CCCTCCCTGGACAATGCATCTTTATGGTGTATCCCCTTGAAGGGATGTTGGCCACCTGCCAGTGAG
CCTCCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC229129 representing NM_016178
Red=Cloning site Green=Tags(s)

MPCKRCRPSVYLSYIKRGKTRNYLYPIWSPYAYLYCYKYRITLREKMLPRCYKSITYKEEEDLTLQPR
 SCLQCSESLVGLQEGKSTEQGNHDQLKELYSAGNLTVLATDPLLHQDPVQLDFHFRLTSTSAHWHGLLC
 DRRLFLDIPYQALDQGNRESLTATLEYVEEKTNDVSVFVNFQNDNRDRGALLRAF SYMGFEVVRPDHPAL
 PPLDNVIFMVYPLERDVGHLPSEPP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8036_b07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_016178

ORF Size: 1538 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_016178.2](#), [NP_057262.2](#)

RefSeq ORF: 709 bp

Locus ID: 51686

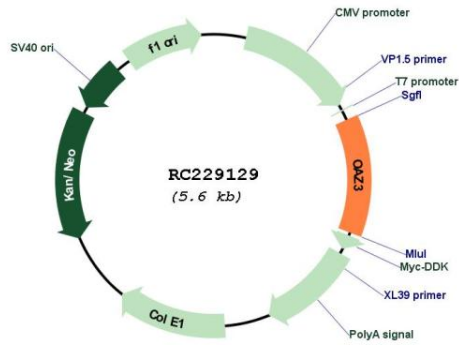
UniProt ID: [Q9UMX2](#)

Cytogenetics: 1q21.3

MW: 27.2 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. Alternatively spliced transcript variants encoding different isoforms, including one resulting from the use of non-AUG (CUG) translation initiation codon, have been found for this gene. [provided by RefSeq, Dec 2014]

Product images:



Circular map for RC229129