

Product datasheet for RC215120

OAZ2 (NM_002537) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: OAZ2 (NM_002537) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: OAZ2
Synonyms: AZ2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC215120 representing NM_002537
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATAAACACCCAGGACAGTAGTATTTTGCCTTTGAGTAACTGTCCCCAGCTCCAGTGCTGCAGGCACA
TTGTTCCAGGGCCTCTGTGGTCTCCGATGCCCTCACCCACTGTCAAGATCCCCGGTGGGCGAGGGGG
CGGCAGGGATCCTTCTCTCAGCTCTAATATAAAGGACGAGAAGCTCACTGTGACCCAGGACCTCCCT
GTGAATGATGAAAACCTCACATCGTCCACTTCCAGTATGAGGTCACCGAGGTGAAGGTCTCTTCTTGGG
ATGCAGTCTGTCCAGCCAGAGCCTGTTGTAGAAATCCAGATGGATTATTAGCTGATGGGAGCAAAGA
AGGATTGTTAGCACTGCTAGAGTTTGTGAAGAGAAGATGAAAGTGAAGTATGTCTTCATCTGCTTCAGG
AAGGGCCGAGAAGACAGAGCTCCACTCCTGAAGACCTTCAGCTTCTTGGGCTTTGAGATTGTACGTCAG
GCCATCCCTGTGTCCCCTCTCGGCCAGATGTGATGTTTCATGGTTTATCCCTGGACCAGAAGTGTCCGA
TGAGGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC215120 representing NM_002537
 Red=Cloning site Green=Tags(s)

MINTQDSSILPLSNPQLQCCRHIVPGLWCSDAPHPLSKIPGGRGGGRDPSLSALIKDEKLTVTQDLP
VNDGKPHIVHFQYEVTEVKVSSWDAVLSQSLFVEIPDGLLADGSKEGLLALLEFAEEKMKVNYVFCFR
KGREDRAPLLKTF SFLGFEIVRPGHPCVPSRPDVMFMVYPLDQNLSD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002537

ORF Size: 263 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 Size: 1906 bp

RefSeq ORF: 571 bp

Locus ID: 4947

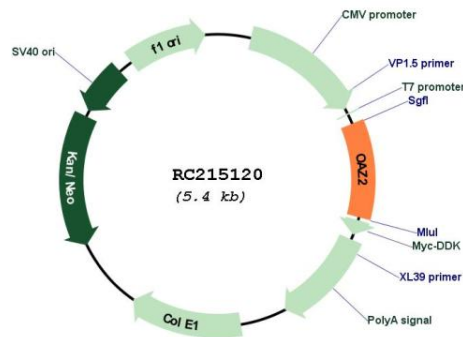
UniProt ID: [O95190](#)

Cytogenetics: 15q22.31

MW: 20.8 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 polyamines. 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 RC215120