

Product datasheet for **RG235541**

OAZ3 (NM_001301371) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: OAZ3 (NM_001301371) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: OAZ3
Synonyms: AZ3; OAZ-t; TISP15
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG235541 representing NM_001301371.
Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAGACCTGAGGGAGGACCCCGCGCTCGGCGGCAGGAAAGGCCCCCGCCAGTGCTGCCTGCGGCGCGC
CGCATCACTTATAAGGAAGAGGAGGACTTGACACTCCAGCCCGTTCTGCCTCCAGTGCTCCATGAGA
CCTGAGGGAGGACCCCGCGCTCGGCGGCAGGAAAGGCCCCCGCCAGTGCTGCCTGCGGCGCGCCGCATC
ACTTATAAGGAAGAGGAGGACTTGACACTCCAGCCCGTTCTGCCTCCAGTGCTCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

Protein Sequence: >Peptide sequence encoded by RG235541
Blue=ORF Red=Cloning site Green=Tag(s)

```
MRPEGGPRRRRQERPPPVLPAARRITYKEEDLTLQPRSLQCSMRPEGGPRRRRQERPPPVLPAARRI
TYKEEDLTLQPRSLQCS
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGYNTRIEKYEDGGVLHVSFSYRYEAGRVI GDFKVMGTGFPEP
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

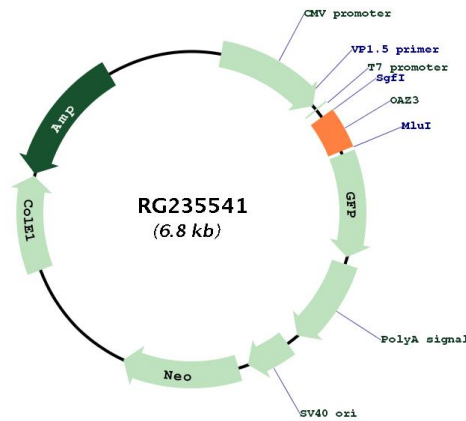
Restriction Sites: SgfI-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_001301371

ORF Size: 264 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).
RefSeq:	NM_001301371 , NP_001288300
RefSeq Size:	753 bp
RefSeq ORF:	613 bp
Locus ID:	51686
UniProt ID:	Q9UMX2
Cytogenetics:	1q21.3
MW:	10.8 kDa
Gene Summary:	<p>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]</p>