

Product datasheet for TL519153V

OriGene Technologies, Inc.

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Oaz3 Mouse shRNA Lentiviral Particle (Locus ID 53814)

Product data:

Product Type: shRNA Lentiviral Particles

Product Name: Oaz3 Mouse shRNA Lentiviral Particle (Locus ID 53814)

Locus ID: 53814

Synonyms: AZ; AZ-; Az-3; AZ3; Oaz; Oaz-t

Vector: pGFP-C-shLenti (TR30023)

Format: Lentiviral particles

Components: Oaz3 - Mouse shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble

control), 0.5 ml each, >10^7 TU/ml.

RefSeq: NM 016901, NM 016901.3, BC119339, BC119341

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]

shRNA Design: These shRNA constructs were designed against multiple splice variants at this gene locus. To

be certain that your variant of interest is targeted, please contact <u>techsupport@origene.com</u>. If you need a special design or shRNA sequence, please utilize our <u>custom shRNA service</u>.







Performance Guaranteed:

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).