

Product datasheet for **TG708150**

Oaz2 Rat shRNA Plasmid (Locus ID 501454)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Oaz2 Rat shRNA Plasmid (Locus ID 501454)
Locus ID:	501454
Synonyms:	RGD1562933
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Oaz2 - Rat , 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 501454). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	NM_001109899 , NM_001301297 , NM_001301297.1 , NM_001109899.2
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]
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 techsupport@origene.com . If you need a special design or shRNA sequence, please utilize our custom shRNA service .



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**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).