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# Product datasheet for TL710358

## Aox1 Rat shRNA Plasmid (Locus ID 54349)

### Product data:

| | |
|---|---|
| **Product Type:** | shRNA Plasmids |
| **Product Name:** | Aox1 Rat shRNA Plasmid (Locus ID 54349) |
| **Locus ID:** | 54349 |
| **Vector:** | pGFP-C-shLenti (TR30023) |
| **E. coli Selection:** | Chloramphenicol (34 ug/ml) |
| **Mammalian Cell Selection:** | Puromycin |
| **Format:** | Lentiviral plasmids |
| **Components:** | Aox1 - Rat, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 54349). 5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free. |
| **RefSeq:** | NM_019363, NM_019363.1, NM_019363.2, NM_019363.3 |
| **UniProt ID:** | Q9Z0U5 |
| **Summary:** | Oxidase with broad substrate specificity, oxidizing aromatic azaheterocycles, such as N1-methylnicotinamide, N-methylphthalazinium and phthalazine, as well as aldehydes, such as benzaldehyde, retinal, pyridoxal, and vanillin. Plays a role in the metabolism of xenobiotics and drugs containing aromatic azaheterocyclic substituents. Participates in the bioactivation of prodrugs such as famciclovir, catalyzing the oxidation step from 6-deoxypenciclovir to penciclovir, which is a potent antiviral agent. Is probably involved in the regulation of reactive oxygen species homeostasis. Is a prominent source of superoxide generation via the one-electron reduction of molecular oxygen. Also catalyzes nitric oxide (NO) production; under anaerobic conditions, reduces nitrite to NO with NADH or aldehyde as electron donor, but under aerobic conditions, NADH is the preferred substrate. These reactions may be catalyzed by several isozymes. May play a role in adipogenesis.[UniProtKB/Swiss-Prot Function] |
| **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).