

## **Product datasheet for TR307932**

## OriGene Technologies, Inc.

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## **AKR7L Human shRNA Plasmid Kit (Locus ID 246181)**

**Product data:** 

**Product Type:** shRNA Plasmids

Product Name: AKR7L Human shRNA Plasmid Kit (Locus ID 246181)

**Locus ID:** 246181

**Synonyms:** AFAR3; AKR7A4

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell

Puromycin

Selection: Format:

Retroviral plasmids

Components: AKR7L - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

246181). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

RefSeq: NM 001145289, NM 201252, NR 040288, NR 040289, NM 001145289.1, NM 201252.1,

NM 201252.3, BC035351, BC035351.1

UniProt ID: O8NHP1

**Summary:** This gene is one of three aldo-keto reductase genes that are present in a cluster on the p arm

of chromosome 1. The encoded proteins are involved in the reduction of the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the non-binding AFB1 dialcohol. It has been speculated that this family member encodes a selenoprotein, which includes a selenocysteine (Sec) residue in lieu of a UGA translational termination codon. However, there is no evidence that such a protein is produced in vivo. The alternative interpretation is that this family member is a segregating pseudogene, where some individuals have an allele that encodes a functional enzyme, while other individuals have an allele encoding a protein that is predicted

to be non-functional. [provided by RefSeg, Feb 2017]

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 custom shRNA service.





## 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).