

## **Product datasheet for TL314846**

#### OriGene Technologies, Inc.

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### **ALDH1A1 Human shRNA Plasmid Kit (Locus ID 216)**

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** ALDH1A1 Human shRNA Plasmid Kit (Locus ID 216)

Locus ID: 216

Synonyms: ALDC; ALDH-E1; ALDH1; ALDH11; HEL-9; HEL-S-53e; HEL12; PUMB1; RALDH1

Vector: pGFP-C-shLenti (TR30023)

E. coli Selection: Chloramphenicol (34 ug/ml)

**Mammalian Cell** 

Selection:

Puromycin

Format: Lentiviral plasmids

**Components:** ALDH1A1 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 216).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.

RefSeq: NM 000689, NM 000689.1, NM 000689.2, NM 000689.3, NM 000689.4, BC001505,

BC001505.2, NM 000689.5

UniProt ID: P00352

Summary: The protein encoded by this gene belongs to the aldehyde dehydrogenase family. Aldehyde

dehydrogenase is the next enzyme after alcohol dehydrogenase in the major pathway of alcohol metabolism. There are two major aldehyde dehydrogenase isozymes in the liver, cytosolic and mitochondrial, which are encoded by distinct genes, and can be distinguished by their electrophoretic mobility, kinetic properties, and subcellular localization. This gene

encodes the cytosolic isozyme. Studies in mice show that through its role in retinol

metabolism, this gene may also be involved in the regulation of the metabolic responses to

high-fat diet. [provided by RefSeq, Mar 2011]

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>.

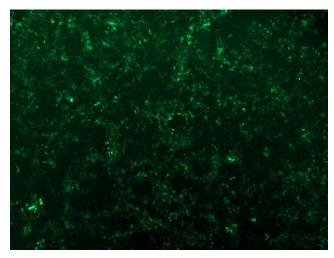


#### Performance Guaranteed:

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.

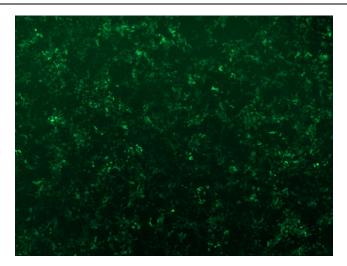
For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating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

# **Product images:**



GFP signal was observed under microscope at 48 hours after transduction of TL314846A virus into HEK293 cells. TL314846A virus was prepared using lenti-shRNA TL314846A and [TR30037] packaging kit.





GFP signal was observed under microscope at 48 hours after transduction of TL314846B virus into HEK293 cells. TL314846B virus was prepared using lenti-shRNA TL314846B and [TR30037] packaging kit.