

## Product datasheet for **TL314841**

### ALDH3A1 Human shRNA Plasmid Kit (Locus ID 218)

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | shRNA Plasmids  |
| Product Name:             | ALDH3A1 Human shRNA Plasmid Kit (Locus ID 218)  |
| Locus ID:                 | 218   |
| Synonyms:                 | ALDH3; ALDHIII  |
| Vector:                   | pGFP-C-shLenti (TR30023)  |
| E. coli Selection:        | Chloramphenicol (34 ug/ml)  |
| Mammalian Cell Selection: | Puromycin   |
| Format:                   | Lentiviral plasmids   |
| Components:               | ALDH3A1 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 218).<br>5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.  |
| RefSeq:                   | <a href="#">NM_000691</a> , <a href="#">NM_001135167</a> , <a href="#">NM_001135168</a> , <a href="#">NM_001330150</a> , <a href="#">NM_000691.1</a> , <a href="#">NM_000691.2</a> , <a href="#">NM_000691.3</a> , <a href="#">NM_000691.4</a> , <a href="#">NM_001135167.1</a> , <a href="#">NM_001135168.1</a> , <a href="#">BC004370</a> , <a href="#">BC004370.1</a> , <a href="#">BC004102</a> , <a href="#">BC008892</a> , <a href="#">BC021194</a> , <a href="#">BM979497</a>  |
| UniProt ID:               | <a href="#">P30838</a>  |
| Summary:                  | Aldehyde dehydrogenases oxidize various aldehydes to the corresponding acids. They are involved in the detoxification of alcohol-derived acetaldehyde and in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation. The enzyme encoded by this gene forms a cytoplasmic homodimer that preferentially oxidizes aromatic and medium-chain (6 carbons or more) saturated and unsaturated aldehyde substrates. It is thought to promote resistance to UV and 4-hydroxy-2-nonenal-induced oxidative damage in the cornea. The gene is located within the Smith-Magenis syndrome region on chromosome 17. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Sep 2008] |
| 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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .  |



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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](mailto: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).