

## Product datasheet for **TR321512**

### **D2HGDH Human shRNA Plasmid Kit (Locus ID 728294)**

#### **Product data:**

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type:             | shRNA Plasmids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Product Name:             | D2HGDH Human shRNA Plasmid Kit (Locus ID 728294)                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Locus ID:                 | 728294                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Synonyms:                 | D2HGD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Vector:                   | pRS (TR20003)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| E. coli Selection:        | Ampicillin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Mammalian Cell Selection: | Puromycin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Format:                   | Retroviral plasmids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Components:               | D2HGDH - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 728294). 5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.                                                                                                                                                                                                                                                                                                 |
| RefSeq:                   | <a href="#">BC036604</a> , <a href="#">NM_001287249</a> , <a href="#">NM_152783</a> , <a href="#">NR_109778</a> , <a href="#">NM_001352824</a> , <a href="#">NM_152783.3</a> , <a href="#">NM_152783.4</a> , <a href="#">NM_001287249.1</a> , <a href="#">BC031817</a> , <a href="#">BC071598</a> , <a href="#">BC073980</a> , <a href="#">NM_001287249.2</a>                                                                                                                                                         |
| UniProt ID:               | <a href="#">Q8N465</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Summary:                  | This gene encodes D-2hydroxyglutarate dehydrogenase, a mitochondrial enzyme belonging to the FAD-binding oxidoreductase/transferase type 4 family. This enzyme, which is most active in liver and kidney but also active in heart and brain, converts D-2-hydroxyglutarate to 2-ketoglutarate. Mutations in this gene are present in D-2-hydroxyglutaric aciduria, a rare recessive neurometabolic disorder causing developmental delay, epilepsy, hypotonia, and dysmorphic features. [provided by RefSeq, Jul 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).