

## Product datasheet for **TR312852**

### GALE Human shRNA Plasmid Kit (Locus ID 2582)

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | shRNA Plasmids   |
| Product Name:             | GALE Human shRNA Plasmid Kit (Locus ID 2582)   |
| Locus ID:                 | 2582   |
| Synonyms:                 | SDR1E1   |
| Vector:                   | pRS (TR20003)  |
| E. coli Selection:        | Ampicillin   |
| Mammalian Cell Selection: | Puromycin  |
| Format:                   | Retroviral plasmids  |
| Components:               | GALE - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 2582). 5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.  |
| RefSeq:                   | <a href="#">BC001273</a> , <a href="#">NM_000403</a> , <a href="#">NM_001008216</a> , <a href="#">NM_001127621</a> , <a href="#">NM_000403.1</a> , <a href="#">NM_000403.2</a> , <a href="#">NM_000403.3</a> , <a href="#">NM_001008216.1</a> , <a href="#">NM_001127621.1</a> , <a href="#">BC001273.1</a> , <a href="#">BC050685</a> , <a href="#">BC050685.2</a> , <a href="#">BC056880</a> , <a href="#">NM_001127621.2</a> , <a href="#">NM_000403.4</a> , <a href="#">NM_001008216.2</a>   |
| UniProt ID:               | <a href="#">Q14376</a>   |
| Summary:                  | This gene encodes UDP-galactose-4-epimerase which catalyzes two distinct but analogous reactions: the epimerization of UDP-glucose to UDP-galactose, and the epimerization of UDP-N-acetylglucosamine to UDP-N-acetylgalactosamine. The bifunctional nature of the enzyme has the important metabolic consequence that mutant cells (or individuals) are dependent not only on exogenous galactose, but also on exogenous N-acetylgalactosamine as a necessary precursor for the synthesis of glycoproteins and glycolipids. Mutations in this gene result in epimerase-deficiency galactosemia, also referred to as galactosemia type 3, a disease characterized by liver damage, early-onset cataracts, deafness and cognitive disability, with symptoms ranging from mild ('peripheral' form) to severe ('generalized' form). Multiple alternatively spliced transcripts encoding the same protein have been identified. [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).