

## Product datasheet for **TR310532**

### PDHA1 Human shRNA Plasmid Kit (Locus ID 5160)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	PDHA1 Human shRNA Plasmid Kit (Locus ID 5160)
Locus ID:	5160
Synonyms:	PDHA; PDHAD; PDHCE1A; PHE1A
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	PDHA1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 5160). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_000284</a> , <a href="#">NM_001173454</a> , <a href="#">NM_001173455</a> , <a href="#">NM_001173456</a> , <a href="#">NM_000284.1</a> , <a href="#">NM_000284.2</a> , <a href="#">NM_000284.3</a> , <a href="#">NM_001173456.1</a> , <a href="#">NM_001173455.1</a> , <a href="#">NM_001173454.1</a> , <a href="#">BC002406</a> , <a href="#">BC002406.1</a> , <a href="#">NM_001173456.2</a> , <a href="#">NM_001173454.2</a> , <a href="#">NM_000284.4</a> , <a href="#">NM_001173455.2</a>
UniProt ID:	<a href="#">P08559</a>
Summary:	The pyruvate dehydrogenase (PDH) complex is a nuclear-encoded mitochondrial multienzyme complex that catalyzes the overall conversion of pyruvate to acetyl-CoA and CO <sub>2</sub> , and provides the primary link between glycolysis and the tricarboxylic acid (TCA) cycle. The PDH complex is composed of multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3). The E1 enzyme is a heterotetramer of two alpha and two beta subunits. This gene encodes the E1 alpha 1 subunit containing the E1 active site, and plays a key role in the function of the PDH complex. Mutations in this gene are associated with pyruvate dehydrogenase E1-alpha deficiency and X-linked Leigh syndrome. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Mar 2010]
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).