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# Product datasheet for TR313751

## CPS1 Human shRNA Plasmid Kit (Locus ID 1373)

### Product data:

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|---|---|
| **Product Type:** | shRNA Plasmids |
| **Product Name:** | CPS1 Human shRNA Plasmid Kit (Locus ID 1373) |
| **Locus ID:** | 1373 |
| **Synonyms:** | CPSASE1; GATD6; PHN |
| **Vector:** | pRS (TR20003) |
| **E. coli Selection:** | Ampicillin |
| **Mammalian Cell Selection:** | Puromycin |
| **Format:** | Retroviral plasmids |
| **Components:** | CPS1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 1373). 5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free. |
| **RefSeq:** | NM_001122633, NM_001122634, NM_001875, NM_001875.1, NM_001875.2, NM_001875.3, NM_001875.4, NM_001122634.1, NM_001122634.2, NM_001122634.3, NM_001122633.1, NM_001122633.2, BC020695, BC058010, BC140943, NR_163592, NM_001369256, NM_001369257, NR_161225 |
| **UniProt ID:** | P31327 |
| **Summary:** | The mitochondrial enzyme encoded by this gene catalyzes synthesis of carbamoyl phosphate from ammonia and bicarbonate. This reaction is the first committed step of the urea cycle, which is important in the removal of excess urea from cells. The encoded protein may also represent a core mitochondrial nucleoid protein. Three transcript variants encoding different isoforms have been found for this gene. The shortest isoform may not be localized to the mitochondrion. Mutations in this gene have been associated with carbamoyl phosphate synthetase deficiency, susceptibility to persistent pulmonary hypertension, and susceptibility to venoocclusive disease after bone marrow transplantation.[provided by RefSeq, May 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 techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service. |

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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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).