

## Product datasheet for **TR316456**

### ATP5A (ATP5A1) Human shRNA Plasmid Kit (Locus ID 498)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	ATP5A (ATP5A1) Human shRNA Plasmid Kit (Locus ID 498)
Locus ID:	498
Synonyms:	ATP5A; ATP5A1; ATP5AL2; ATPM; COXPD22; hATP1; HEL-S-123m; MC5DN4; MOM2; OMR; ORM
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	ATP5A1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 498). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001001935</a> , <a href="#">NM_001001937</a> , <a href="#">NM_001257334</a> , <a href="#">NM_001257335</a> , <a href="#">NM_004046</a> , <a href="#">NM_001001937.1</a> , <a href="#">NM_004046.1</a> , <a href="#">NM_004046.2</a> , <a href="#">NM_004046.3</a> , <a href="#">NM_004046.4</a> , <a href="#">NM_004046.5</a> , <a href="#">NM_001001935.1</a> , <a href="#">NM_001001935.2</a> , <a href="#">NM_001257335.1</a> , <a href="#">BC019310</a> , <a href="#">BC003119</a> , <a href="#">BC007299</a> , <a href="#">BC008028</a> , <a href="#">BC011384</a> , <a href="#">BC016046</a> , <a href="#">BC028335</a> , <a href="#">BC035703</a> , <a href="#">BC039135</a> , <a href="#">BC042694</a> , <a href="#">BC064562</a> , <a href="#">BC067385</a> , <a href="#">NM_004046.6</a> , <a href="#">NM_001257334.2</a> , <a href="#">NM_001001935.3</a>
UniProt ID:	<a href="#">P25705</a>
Summary:	This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, using an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. ATP synthase is composed of two linked multi-subunit complexes: the soluble catalytic core, F1, and the membrane-spanning component, Fo, comprising the proton channel. The catalytic portion of mitochondrial ATP synthase consists of 5 different subunits (alpha, beta, gamma, delta, and epsilon) assembled with a stoichiometry of 3 alpha, 3 beta, and a single representative of the other 3. The proton channel consists of three main subunits (a, b, c). This gene encodes the alpha subunit of the catalytic core. Alternatively spliced transcript variants encoding the different isoforms have been identified. Pseudogenes of this gene are located on chromosomes 9, 2, and 16. [provided by RefSeq, Mar 2012]



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**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](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).

**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).