

## Product datasheet for **TR304860**

### **KIAA1970 (EARS2) Human shRNA Plasmid Kit (Locus ID 124454)**

#### **Product data:**

<b>Product Type:</b>	shRNA Plasmids
<b>Product Name:</b>	KIAA1970 (EARS2) Human shRNA Plasmid Kit (Locus ID 124454)
<b>Locus ID:</b>	124454
<b>Synonyms:</b>	COXPD12; gluRS; MSE1; mtGlnRS
<b>Vector:</b>	pRS (TR20003)
<b>E. coli Selection:</b>	Ampicillin
<b>Mammalian Cell Selection:</b>	Puromycin
<b>Format:</b>	Retroviral plasmids
<b>Components:</b>	EARS2 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 124454). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
<b>RefSeq:</b>	<a href="#">NM_001083614</a> , <a href="#">NM_001308211</a> , <a href="#">NM_133451</a> , <a href="#">NR_003501</a> , <a href="#">NM_001083614.1</a> , <a href="#">NM_133451.1</a> , <a href="#">BC020592</a> , <a href="#">BC040013</a> , <a href="#">NM_001083614.2</a>
<b>UniProt ID:</b>	<a href="#">Q5JPH6</a>
<b>Summary:</b>	This gene encodes a member of the class I family of aminoacyl-tRNA synthetases. These enzymes play a critical role in protein biosynthesis by charging tRNAs with their cognate amino acids. This protein is encoded by the nuclear genome but is likely to be imported to the mitochondrion where it is thought to catalyze the ligation of glutamate to tRNA molecules. Mutations in this gene have been associated with combined oxidative phosphorylation deficiency 12 (COXPD12). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2015]
<b>shRNA Design:</b>	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).