

## Product datasheet for **SC316061**

### **KIAA1970 (EARS2) (NM\_001083614) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KIAA1970 (EARS2) (NM_001083614) Human Untagged Clone
Tag:	Tag Free
Symbol:	EARS2
Synonyms:	COXPD12; gluRS; MSE1; mtGlnRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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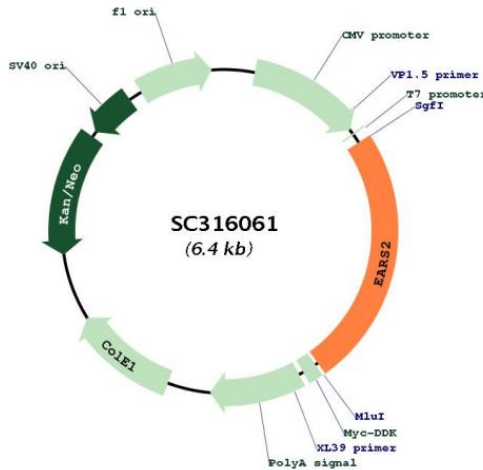
Fully Sequenced ORF: >SC316061 representing NM\_001083614.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGCGCGCTCCTGAGGAGACTGCTGCAGCGCAGAGGCCTTCGGCGGCCTCTGGCCGCCCGTAGGA
CGGCGCAGGCCAACCTGGGCACTGATGCCGGGTTGCGGTGCGAGTGGGTTTCGCTCCCAGCCCCACA
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TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN: NM\_001083614

<b>Insert Size:</b>	1572 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001083614.1</a>
<b>RefSeq Size:</b>	3979 bp
<b>RefSeq ORF:</b>	1572 bp
<b>Locus ID:</b>	124454
<b>UniProt ID:</b>	<a href="#">Q5JPH6</a>
<b>Cytogenetics:</b>	16p12.2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Aminoacyl-tRNA biosynthesis, Metabolic pathways, Porphyrin and chlorophyll metabolism
<b>MW:</b>	58.7 kDa
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.</p>