

## Product datasheet for **RC232847**

### **SESN1 (NM\_001199933) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SESN1 (NM_001199933) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SESN1
Synonyms:	PA26; SEST1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC232847 representing NM\_001199933  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCGCTTGGCCGCCCGCGAACGAGGCGTACACGGCCCTTTGGCGGTCTCGGGGCTGCTGGGCTGCA  
 AGCAGTGC GGCGGGGCGCACCAGGACGAGGAAGTGGCATTAGAATTCCTCGACCACTAGGACAGGG  
 ACCAAGCAGATTCATCCAGAAAAGGAGATCCTCAAGTGGGAGTGAAGACGCACAGATGCATGCTTTA  
 TTTGCAGATTCCTTTGCTGCTTTGGCCGTTTGGATAACATTACGTTAGTGATGGTTTTCCACCCACAAT  
 ATTTAGAAAGTTTCTAAAACTCAGCACTATCTACTGCAATGGATGGGCGTTACCCCTACATTATCG  
 TCACTACATTGGAATAATGGCTGCGGCAAGACATCAGTGTCTCTACTAGTGAACCTGCATGTAATGAT  
 TTCCTTCAATGTTGGTGGGACCCCAAGTGGCTCAATGGTTAGAGAATGCTCCTCAAAAACACAGAATT  
 TAGGAGAACTTAACAAAGTGTAGCCATAGACCTTGGCTTATTACCAAAGAACACATTGAGGGACTTTT  
 AAAAGCTGAAGAGCACAGCTGGTCCCTTGGGAATTGGTACATGCAGTAGTTTTACTCACACACTATCAT  
 TCTCTTGCCCTATTACATTTCGGCTGTGGAATCAGTCCAGAAATTCATTGTGATGGTGGCCACACATTCA  
 GACCTCCTTCTGTAGCAACTACTGCATCTGTGACATTACAAATGGCAATCACAGTGTGGATGAGATGCC  
 GGTCAACTCAGCAGAAAATGTTTCTGTAAGTATTCTTTCTTTGAGGTTGAAGCCCTCATGGAAAAGATG  
 AGGCAGTTACAGGAATGTCGAGATGAAGAAGAGGCAAGTCAAGGAAGAGATGGCTTACGTTTTGAAATAG  
 AAAAAAGAGAGAGATGTTTGTCTTCTCTTTCAGATGATGAAGAAGTTACACCAGCAAGAGCTGTATCTCG  
 TCATTTTGAGGATACTAGTTATGGCTATAAAGATTTCTCTAGACATGGGATGCATGTTCCAACATTTTCTG  
 TCCAGGACTATTGCTGGGAAGATCATGGTTATCTTTGGTAAATCGCCTTTATCCAGATGTGGGACAGT  
 TGATTGATGAAAAATTTACAAATGCTTACAATCTACTTATAATAACAATGGCAATGCACAAGATGTTGA  
 TACCTCAATGCTTAGACGGCAATTTGGAACTATATTCACTGCATGTTTGGAAATAAGATATGATGATTAT  
 GACTATGGTGAATTAACCAGCTATTGGATCGTAGCTTTAAAGTTTATATCAAAACTGTTGTTTGCACCTC  
 CTGAAAAGGTTACCAAAAAGATGTATGATAGCTTCTGGAGGCAGTTCAAGCACTCTGAGAAGGTTTATGAT  
 TAATCTGCTTCTTATAGAAGCTAGGATGCAAGCAGAACTCTTTATGCTCTGAGAGCCATTACCCGCTAT  
 ATGACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC232847 representing NM\_001199933  
 Red=Cloning site Green=Tags(s)

MRLAAAANEAYTAPLAVSGLLGCKQCGGGRDQDEELGIRIPRPLGQGPSRFIPEKEILQVGSEDAQMHAL  
 FADSF AALGRLDNITLVMVFHPQYLESFLKTQHYLLQMDGPLPLHYRHYIGIMAAARHQCSYLVNLHVND  
 FLHVGGDPKWLNGLENAPQKLQNLGELNKVLAHRPWLITKEHIEGLLKAEEHSWSLAELVHAVVLLTHYH  
 SLASFTFGCGISPEIHCDGGHTFRPPSVSNYICDITNGNHSVDEMPVNSAENVSVSDSFFVEALMEKM  
 RQLQECRDEEEASQEEMASRFEIEKRESMFVFSDDDEEVT PARAVSRHFEDTSYGYKDFSRHGMHVPTFR  
 VQDYCWEDHGYSLVNRLYPDVGQLIDEKFHIAYNLTYNTMAMHKDVDTSMRLRAIWNYYIHC MFIRYDDY  
 DYGEINQLLDRSFVYIKTVVCTPEKVTKRMYSFWRQFKHSEKVHVNLLLIEARMQAELLYALRAITRY  
 MT

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

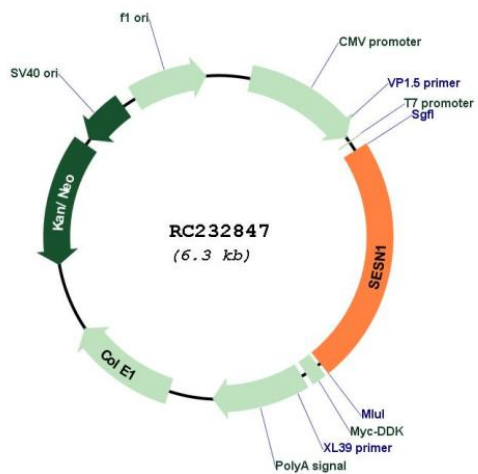
Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM\_001199933

ORF Size: 1476 bp

<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<u><a href="#">NM_001199933.1</a>, <a href="#">NP_001186862.1</a></u>
<b>RefSeq Size:</b>	2698 bp
<b>RefSeq ORF:</b>	1479 bp
<b>Locus ID:</b>	27244
<b>UniProt ID:</b>	<u><a href="#">Q9Y6P5</a></u>
<b>Cytogenetics:</b>	6q21
<b>Protein Pathways:</b>	p53 signaling pathway
<b>MW:</b>	57 kDa

**Gene Summary:**

This gene encodes a member of the sestrin family. Sestrins are induced by the p53 tumor suppressor protein and play a role in the cellular response to DNA damage and oxidative stress. The encoded protein mediates p53 inhibition of cell growth by activating AMP-activated protein kinase, which results in the inhibition of the mammalian target of rapamycin protein. The encoded protein also plays a critical role in antioxidant defense by regenerating overoxidized peroxiredoxins, and the expression of this gene is a potential marker for exposure to radiation. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Dec 2010]