

Product datasheet for **RG211305**

SESN1 (NM_014454) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SESN1 (NM_014454) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SESN1
Synonyms:	PA26; SEST1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG211305 representing NM_014454
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTGAAGGAGAGAATGAAGTGAGATGGGATGGACTCTGCAGCAGAGATTCAACTACTAGGGAGACAG
 CATTGGAAAACATTAGGCAAACATTTTGGAGAAAACCGAGTATCTTCGTTTCGGTGAAAGAAACACCTCA
 TCGTCCATCAGACGGGCTTTCAAATACCGAGTCTTCGGATGGGTTGAATAAGCTACTTGCTCATCTGCTT
 ATGCTTTCTAAGAGGTGCCCTCAAAGATGTGAGAGAGAAAAGTGAGTTTATTCTGAAGAGCATCCAGG
 AACTTGGCATTAGAATTCCTCGACCACTAGGACAGGGACCAAGCAGATTCATCCAGAAAAGGAGATCCT
 CCAAGTGGGGAGTGAAGACGCACAGATGCATGCTTTATTTGCAGATTCCTTTGCTGCTTTGGGCCGTTT
 GATAACATTACGTTAGTGATGGTTTTCCACCCACAATATTTAGAAAGTTTCTTAAAACTCAGCACTATC
 TACTGCAATGGATGGGCCGTTACCCCTACATTATCGTCACTACATTGGAATAATGGCTGCGGCAAGACA
 TCAGTGCTCCTACTTAGTGAACCTGCATGTAATGATTCCTTCATGTTGGTGGGACCCCAAGTGGCTC
 AATGGTTTAGAGAATGCTCCTCAAAAACACAGAAATTTAGGAGAACTTAACAAAGTGTAGCCCATAGAC
 CTTGGCTTATTACCAAAGAACACATTGAGGGACTTTTAAAAGCTGAAGAGCACAGCTGGTCCCTTGC
 ATTTGGTACATGCAGTAGTTTTACTCACACACTATCATTCTCTTGCCCTCATTACATTTCGGCTGTGGAATC
 AGTCCAGAAATTCATTGTGATGGTGGCCACACATTCAGACCTCCTTCTGTAGCAACTACTGCATCTGTG
 ACATTACAAATGGCAATCACAGTGTGGATGAGATGCCGGTCAACTCAGCAGAAAAATGTTTCTGTAAGTGA
 TTCTTTCTTTGAGGTTGAAGCCCTCATGAAAAAGATGAGGCAGTTACAGGAATGTCGAGATGAAGAAGAG
 GCAAGTCAGGAAGAGATGGCTTACGTTTTGAAATAGAAAAAGAGAGAGATGTTTGTCTTCTCTTCAG
 ATGATGAAGAAGTTACACCAGCAAGAGCTGTATCTCGTCATTTTGAGGATACTAGTTATGGCTATAAGA
 TTTCTCTAGACATGGGATGCATGTTCCAACATTTTCGTGTCCAGGACTATTGCTGGGAAGATCATGGTTAT
 TCTTTGGTAAATCGCCTTTATCCAGATGTGGGACAGTTGATTGATGAAAAATTTACATTGCTTACAATC
 TTACTTATAATACAATGGCAATGCACAAAGATGTTGATACCTCAATGCTTAGACGGGCAATTTGGA
 ACTA TATTCATGATGTTTGGAAATAGATATGATGATTATGACTATGGTGAATTAACCAGCTATTGGATCGT
 AGCTTTAAAGTTTATATCAAACTGTTGTTTGCACCTCTGAAAAGGTTACCAAAGAAATGTATGATAGCT
 TCTGGAGGCAGTTCAAGCACTCTGAGAAGGTTTCATGTTAATCTGCTTCTTATAGAAGCTAGGATGCAAGC
 AGAACTCCTTTATGCTCTGAGAGCCATTACCCGCTATATGACC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG211305 representing NM_014454
 Red=Cloning site Green=Tags(s)

MAEGENEVRWDGLCSRSTTRETALENIRQTILRKTEYLRSVKETPHRPSDGLSNTESDGLNKLALHLL
 MLSKRCPFKDVREKSEFILKSIQELGIRIPRPLGQGPSRFIPEKEILQVGSEDAQMHALFADSFALGRL
 DNITLVMVFHPQYLESFLKTQHYLLQMDGPLPLHYRHYIGIMAAARHQCSYLVNLHVNDFLHVGDPKWL
 NGLENAPQKLQNLGELNKVLAHRPWLITKEHIEGLLKAEHWSLAELVHAVVLLTHYHSLASFTFGCGI
 SPEIHCDDGGHFRPPSVSNYICDITNGNHSVDEMPVNSAENVSVSDSFFEVEALMEKMRQLQECRDEEE
 ASQEEMASRFEIEKRESMFVSSDDEEVTPARAVSRHFEDTSYGYKDFSRHGMHVPTFRVQDYCWEDHGY
 SLVNRLYPDVGQLIDEKFHIAYNLTNTMAMHKVDVTSMLRRAIWNYYIHCMTGIRYDDYDGEINQLLDR
 SFKVVYIKTVVCTPEKVTKRMYDSFWRQFKHSEKVVHVNLLLIEARMQAELLYALRAITRYMT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_014454

ORF Size: 1653 bp

OTI Disclaimer: 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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: 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).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 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.

RefSeq: [NM_014454.3](#)

RefSeq Size: 3212 bp

RefSeq ORF: 1656 bp

Locus ID: 27244

UniProt ID: [Q9Y6P5](#)

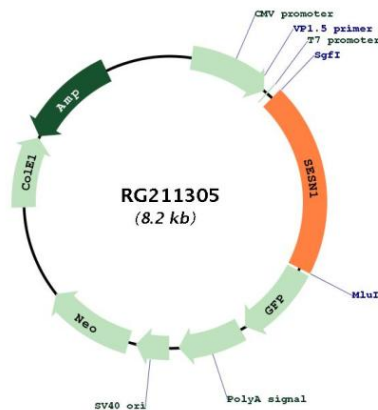
Cytogenetics: 6q21

Domains: PA26

Protein Pathways: p53 signaling pathway

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]

Product images:



Circular map for RG211305