

Product datasheet for **RR206070**

Elov12 (NM_001109118) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Elov12 (NM_001109118) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Elov12
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR206070 representing NM_001109118 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTTGGACCACGGGATTCTCGAGTTCGAGGGTGGTTCTCTGCTGGACTTTACCTCCACCTTCACCC
TCACCATCGTGTATCTGCTCTCAATATGGCTGGGTAACAAGTACATGAAGAACAGGCCTGCTCTTTCTCT
CAGGGGAATCCTCACCTTGATAACCTCGGAATCACACTTCTTTCTGCATATATGCTGGTGGAGCTCGTT
CTCTCCAGCTGGGAAGGAGGCTACAACCTGCAGTGTGAGAATCTGGACAGCGCAGGAGAAGGCGATATCC
GGTAGCCAAGGTCTTGTGGTGGTACTACTTCTCCAAACTGGTGGAGTTCCTGGACACGATCTTCTTTGT
TCTTCGGAAAAAGACCAGTCAGATCACCTTCCTCATGTCTATCACCATGCGTCCATGTTTAAACATCTGG
TGGTGTGTTTTGAACTGGATACCTTGTGGTCAAAGCTTCTTCGGACCAACCCTGAACAGCTTTATCCACA
TCCTCATGTACTCCTACTACGGGCTGTCTGTGCCGTCCATGCACAGGTACCTTTGGTGAAGAAATA
CCTCACGCAGGCCAGCTGGTACAGTTTGTACTGACCATCACGCACAGCTGAGTGCCGTGGTGAAGCCC
TGTGGCTTCCCCTTTGGCTGTCTCATCTCCAGTCTTCTACATGATGACTGGTTATCCTGTTCTTAA
ACTTCTATATTCAGACATACCGAAAAAGCCAATGAAGAAGGAGATGCCAGAAGGAGCCGCAGGGAAGA
AGTGAAGAATGGTTTCCCAAAGCCCACTCCATCGCAGCTAATGGCGTGACGGACAAGAAGGTGCAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR206070 representing NM_001109118
Red=Cloning site Green=Tags(s)

MFGPRDSRVRGWFLLD SYLPTFTLTIVYLLSIWLGNKYMKNRPALSLRGILTYNLGITLLSAYMLVELV
 LSSWEGGYNLQCQNLD SAGEGDIRVAKVLWYYF SKLVEFLDTIFFVLRKKT SQITFLHVYHHASMFNIW
 WCVLWNWIPCGQSFFGPTLNSFIHLMYSYYGLSVFSPMHRYLWKKYL TQAQLVQFVLTITHTLSAVVKP
 CGFPFGCLIFQSSYMTLVILFLNFYIQTYRKKPMKKEMPEGAAGKEVKNGFPAKHSIAANGVTDKKVQ

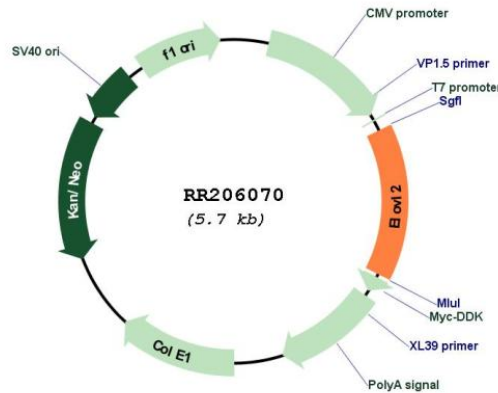
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001109118

ORF Size: 837 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_001109118.1](#), [NP_001102588.1](#)

RefSeq Size: 3731 bp

RefSeq ORF: 840 bp

Locus ID: 498728

UniProt ID: [D4A612](#)

Cytogenetics: 17p14

MW: 32.4 kDa

Gene Summary: Catalyzes the first and rate-limiting reaction of the four reactions that constitute the long-chain fatty acids elongation cycle. This endoplasmic reticulum-bound enzymatic process allows the addition of 2 carbons to the chain of long- and very long-chain fatty acids (VLCFAs) per cycle. Condensing enzyme that catalyzes the synthesis of polyunsaturated very long chain fatty acid (C20- and C22-PUFA), acting specifically toward polyunsaturated acyl-CoA with the higher activity toward C20:4(n-6) acyl-CoA. May participate in the production of polyunsaturated VLCFAs of different chain lengths that are involved in multiple biological processes as precursors of membrane lipids and lipid mediators.[UniProtKB/Swiss-Prot Function]