

## Product datasheet for **RG228581**

### ELAC2 (NM\_001165962) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ELAC2 (NM_001165962) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ELAC2
Synonyms:	COXPD17; ELC2; HPC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG228581 representing NM\_001165962  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTGGGCGCTTTGCTCGTGTGCGGTCCGCGCGCCGACGCACCATGTGCGAGGACGCACCATATCGC  
 AGGCACCCGCCCGCGAGCGGCCGCGCAAGGACCCGCTGCGGCACCTGCGCACGCGAGAGAAGCGCGG  
 ACCGTCGGGGTGCTCCGGCGGCCAAACACCGTGTACCTGCAGGTGGTGGCAGCGGGTAGCCGGGACTCG  
 GGCGCCGCGCTCTACGTCTTCTCCGAGTTCAACCGGTATCTCTTCAACTGTGGAGAAGCGTTTCAGAGAC  
 TCATGCAGGAGCACAAGTTAAAGTTGCTCGCCTGGACAACATATTCCTGACACGAATGCACTGGTCTAA  
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 AGAGGAAACTTCTTGGTGTCAAAGCAAAGGAGATGGGCCTCCAGTTGGGACAGCTGCCATCGCTCCCA  
 TCATTGCTGTGTCAAGGACGGGAAAAGCATCACTCATGAAGGAAGAGAGATTTGGCTGAAGAGCTGTG  
 TACTCCTCCAGATCCTGGTGTGCTTTTGTGGTGGTAGAATGTCCAGATGAAAGCTTCATTCAACCCATC  
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 CTTGGTCTGAATGAGAAGTGTGCCTCAGTTTACAACCTTCGCAGCCACAAGATTCAAACCCAGCTCAAC  
 CTCATCCACCCGGACATTTCCCTGCTCACCAGTTTCCGCTGTAAGAAGGAGGGCCCCACCCTCAGTG  
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 CAGGAGTACAGGAGGAGTGCAGCAGGACGCCAGCCAGCCAGCAGAGAAAAGAGTCACTACCCAGAAATCA  
 TCTTCTTGGAAACAGGGTCTGCCATCCCGATGAAGATTCGAAATGTCAAGTCCACACTTGTCAACATAAG  
 CCCCAGACAGTCTCTGCTACTGGACTGTGGTGGAGGCACATTTGGGCAGCTGTGCCGTCATTACGGAGAC  
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 GCTTGCCAAGTATCTTGTGTCAGAGAGAACGCGCCTTGGCATCTTTGGGAAAGCCGCTTCCACCTTTGCT  
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 TCCCCCACTGAAAGCCCTGTTTGTGGCGACATCGAGGAGATGGAGGAGCGCAGGGAGAAGCGGGAGCT  
 GCGGCAGGTGCGGGCGGCCCTCCTGTCCAGGAGCTGGCAGGCGCCTGGAGGATGGGGAGCCTCAGCAG  
 AAGCGGGCCACACAGAGGAGCCACAGGCAAGAAGTCAAGGCCAG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG228581 representing NM\_001165962  
Red=Cloning site Green=Tags(s)

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MWALCSLLRSAAGRTMSQGR TISQAPARRERPRKDPLRHLRTREKRGPSGCSGGPNTVYLQVVAAGSRDS
GAALYVFSEFNRYL FNCGEGVQRLMQEHKLVARLDNI FLTRMHSNVGGLSGMILTLKETGLPKCVLSG
PPQLEKYLEAIKIFSGPLKGI ELAVRPHSAPEYEDE TMTVYQIPIHSVSQRRGVRDSSLV VAFICKLHLK
RGNFLVLKAKEMGLPVGTAAI APIIAAVKDGKSI THEGREILAEELCTPPDPGAA FVVVECPDESFIQPI
CENATFQRYQGKADAPVALV VHM PASVLVDSRYQQWMERFGPDTQHLV LNCASVHNL RSHKIQTQLN
LIHPDIFPLLTSFRCKKEGPTLSVPMVQGECLLKYQLRPRREWQRDAIITCNPEEFIVEALQLPNFQQSV
QEYRRAQDGPAPAEKRSQYPEIIFLGTGSAIPMKIRNVSATLVNISPDTSLLLDCGEGTFGQLCRHYGD
QVDRVLGTLAAVFVSHLHADHTGLPSILLQRERALASLGKPLHPLL VVAPNQLKAWLQQYHNQCQEV LH
HISMIPAKCLQEGAEISSPAVERL ISSLLRTCDLEEFQTCLVRHCKHAFGCALVHTSGWKVVYSGDTMPC
EALVRMGKDATLLIHEATLEDGLEEEAVEKTHSTTSQAISVGMRMNAEFIMLNHF SQR YAKVPLFSNFS
EKVGVAFDHMKVCFGDFPTMPKLI PPLKALFAGDIEEMEERREKREL RQVRAALLSREL AGGLEDEGPQQ
KRAHTEEPQAKKVRAQ
    
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001165962

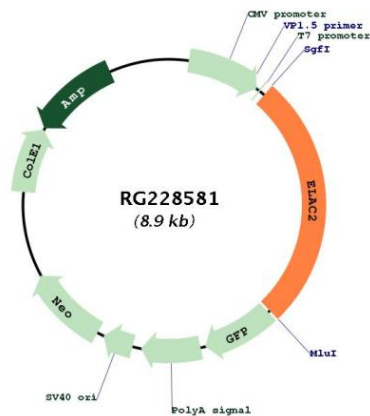
**ORF Size:** 2358 bp

**OTI Disclaimer:** 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\\_001165962.1](#), [NP\\_001159434.1](#)
- RefSeq Size:** 3694 bp
- RefSeq ORF:** 2361 bp
- Locus ID:** 60528
- UniProt ID:** [Q9BQ52](#)
- Cytogenetics:** 17p12
- Protein Families:** Druggable Genome, Stem cell - Pluripotency
- Gene Summary:** The protein encoded by this gene has a C-terminal domain with tRNA 3' processing endoribonuclease activity, which catalyzes the removal of the 3' trailer from precursor tRNAs. The protein also interacts with activated Smad family member 2 (Smad2) and its nuclear partner forkhead box H1 (also known as FAST-1), and reduced expression can suppress transforming growth factor-beta induced growth arrest. Mutations in this gene result in an increased risk of prostate cancer. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2009]

**Product images:**



Circular map for RG228581