

Product datasheet for **RG224648**

Elastin (ELN) (NM_001081752) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Elastin (ELN) (NM_001081752) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ELN
Synonyms:	ADCL1; SVAS; WBS; WS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG224648 ORF sequence, **codon optimized**.
 Due to the complexity of NM_001081752, the ORF clone is codon optimized for mammalian Expression.
 The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGCATCGC**C

ATGGCAGGCTGACAGCCGCTGCCCAAGGCCGGCGTGCTGTTGCTTCTGCTGTCTATTCTGCACCCTTCTAGACCTGGGGGGTACCGGGGCCATCCCGGTGGCGTCCAGGCGGGGTGTTTTACCCGCACTGGGCCAGGGGCAAGCCTCTGAAGCCTGTGCCGGTGGCCTCGCTGGGGCTGGCCTCGGTGCGGGCTGGGCGGTTTTCCCGCTGTACCTTCCCTGGTGCCTGGTACCAGGCGGGTGGCCGACGCTGCGGCCGCGTACA AAGCCGCTAAGGCGGGAGCAGGACTCGGGGAGTACCCGGGTAGGTGGCTCGGCGTAAGCGCTGGAGC CGTCGTGCCTCAGCCTGGCGCCGAGTCAAACCTGGGAAGGTGCCCGGGTAGGGCTGCCTGGAGGTAC CCAGGCGGAGTTCTCCCGCGCCCGCTTCCCGGGGTGGGAGTCTGCCAGGGGTGCCAACAGGAGCCG GAGTGAACCCAAAGCACCTGGCGTCCGGCGGTGCGTTCGCGGTATCCCTGGGGTAGGTCCTTCGGGG CCCTCAACCCGGTGTGCCGTTGGTTATCCCATCAAAGCCCCAAAACCTCCAGGTGGGTACGGCTTGCCA TATAACAGGCAAGCTCCCTATGGCTACGGACCGGGCGGGGTGGCCGGGCAGCCGGCAAGCTGGAT ACCCCACCGGCACAGGAGTGGGGCCACAGGCGGCAGCGCCGCCCTGCCAAGCAGCTGCCAAATTTGG CGCGGGCGCCCGGAGTCCCTCCCTGGGGTGGCGGTGCCGGCTACCTGGGGTACCCGGCGCCATCCCC GGGATTGGAGGAATTGCCGGTGTCCGACACCCGACGAGCCCGCCGCGCCGCGCGCCGCGCCAAAGCAG CCAAATACGCTGCCGCTGCAGGGCTGGTACCTGGAGGACCAGTTTTGGACCCGGAGTCGTCGGAGTTCC CGGGGCGGAGTCCCTGGCGTCCGGGTTCCCGCGCCGGGATCCCGTAGTCCCGGAGCTGGAATTCCT GGCGCCGCGTGCCTGGAGTTGTGAGTCTGAAGCAGCCGAAAAGCTGCCGCAAAGCTGCTAAGTATG GCGCCCGCCCGGCGTCCGAGTGGGAGGCATTCTACATATGGCGTGGGAGCCGGCGGGTCCCTGGATT CGGCGTGGGTGTCCGGGAATCCCGCGTGGCCGGCTTCTGGCGTTGGGGGAGTTCCCGGTGTGGC GGGTTCTTGGCGTGGGATCAGCCAGAAGCCAAAGCCGCTGCCGCTGCGAAAGCCGCAAGTATGGAC TGGTCCGGGAGTCCGGGTCGCACCGGGCGTTGGAGTTGCCCTGGCGTGGGAGTGGCACCTGGGTGGG GCTGGCCCCCGTGTGGGAGTTGCTCCCGTGTAGGAGTGGCTCCAGGTGTGGCGTAGCACCCGGCATT GGTCCCGGGGCGTGGCCGCGCCGCAAACTGCGGCCAAGGTTGCCGCAAAGCACAATTGAGGGCAG CCGCTGGTTTGGGAGCTGGTATCCCTGGGCTGGGTGTGGGAGTGGGAGTACCCGGTCTTGGTGTGGGAGC GGGGTTCCAGGACTCGGCGTGGGCGCCGGCGTCCCTGGATTTGGTGCAGTGCAGGTTGCCCTCGCAGCT GCAAAAGCGGCTAAATACGGGGCGGCAGTCCCTGGAGTGTGGGGGCTTGGCGCTTGGGAGGCGTCCG GAATACCTGGAGGGTGTGGGCGCTGGACCAGTGCAGCCGAGCCGCAAGGCCGCTGCTAAGGC TGCCAGTTCGGCTCGTGGGGCCCGGATTGGGAGGCTTGGCGTGGTGGCTCGGAGTGGCCGG GTGGGAGGCTCGGTGGCATTCTCCCGTGCAGCAGCAAAAGCCGCAAAATACGGAGTGGCAGCCAGAC CTGGGTTCCGCTGAGTCCAATCTTCCAGGAGGCGCTTGCCTCGGTAAGCTTGGGAAGAAAGCCAA G

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG224648 representing NM_001081752
 Red=Cloning site Green=Tags(s)

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MAGLTAAAPRPGVLLLLLSILHPSRPGGVPGAIPGGVPGGVFYPALGPGGKPLKPVPGLAGAGLGAGLG
AFPVTFPGALVPGGVADAAAAYKAAKAGAGLGGVPGVGGGLGVSAGAVVPQPGAGVKPGKIPVGVGLPGVY
PGGVLPGARFPVGVLPVGVPTGAGVKPKAPGVGGAFAGIPGVGPFGGPQPGVPLGYPIKAPKLPGGYGLP
YTTGKLPYGYGPGGVAGAAGKAGYPTGTGVGPQAAAAAAAAAKAAAFGAGAAGVLPVGGAGVPGVPGAIP
GIGGIAGVGTAAAAAAAAAAKAAKYGAAAGLVPGGPGFPGVVGVPAGVPGVPGAGIPVVPAGAGIP
GAAVPGVVSPEAAAAKAAKAAKYGARPGVGVGGIPTYGVGAGGFPFPGVGVGGIPGVAGVPGVGGVPGVG
GVPVGVISPEAQAAAAKAAKYGLVPGVGVAPGVGVAPGVGVAPVGLAPGVGVAPGVGVAPGVGVAPGI
GPGGVAAAAKSAKVAAKAQLRAAAGLGGAGIPGLGVGVGVPGLGVGAGVPLGVGAGVPGFVAVPGALAA
AKAAKYGAAVPGVVGGLGALGGVIGPVGVPVAGPAAAAAAAAAKAAKAAQFGLVGAAGLGGLVGGVPGV
VGGGGIPPAKAAKYGVAARPGFGLSPIFPGGACLGKACGRKRK
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TRTRPLE - GFP Tag - V

Restriction Sites:

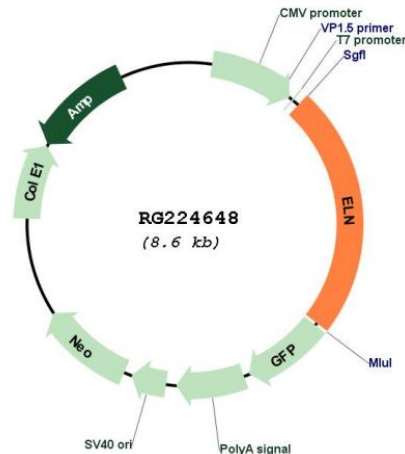
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001081752

ORF Size: 2031 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_001081752.1](#), [NP_001075221.1](#)

RefSeq Size: 3648 bp

RefSeq ORF: 2034 bp

Locus ID: 2006

UniProt ID: [P15502](#)

Cytogenetics: 7q11.23

Protein Families: Druggable Genome, Secreted Protein, Transmembrane

Gene Summary: This gene encodes a protein that is one of the two components of elastic fibers. Elastic fibers comprise part of the extracellular matrix and confer elasticity to organs and tissues including the heart, skin, lungs, ligaments, and blood vessels. The encoded protein is rich in hydrophobic amino acids such as glycine and proline, which form mobile hydrophobic regions bounded by crosslinks between lysine residues. Degradation products of the encoded protein, known as elastin-derived peptides or elastokines, bind the elastin receptor complex and other receptors and stimulate migration and proliferation of monocytes and skin fibroblasts. Elastokines can also contribute to cancer progression. Deletions and mutations in this gene are associated with supravalvular aortic stenosis (SVAS) and autosomal dominant cutis laxa. [provided by RefSeq, Aug 2017]