

# Product datasheet for RC216918L4

### OriGene Technologies, Inc.

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## Collagen VI (COL6A3) (NM\_057164) Human Tagged Lenti ORF Clone

### **Product data:**

**Product Type:** Expression Plasmids

Product Name: Collagen VI (COL6A3) (NM\_057164) Human Tagged Lenti ORF Clone

Tag: mGFP

Symbol: Collagen VI

Synonyms: BTHLM1; DYT27; UCMD1

Mammalian Cell

Selection:

Puromycin

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

E. coli Selection: Chloramphenicol (34 ug/mL)

**ORF Nucleotide** 

The ORF insert of this clone is exactly the same as(RC216918).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 



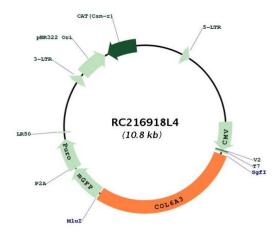


 $<sup>\</sup>ensuremath{^*}$  The last codon before the Stop codon of the ORF.





#### Plasmid Map:



**ACCN:** NM\_057164 **ORF Size:** 3108 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:** <u>NM 057164.4</u>

**RefSeq Size:** 3485 bp **RefSeq ORF:** 3111 bp



## Collagen VI (COL6A3) (NM\_057164) Human Tagged Lenti ORF Clone - RC216918L4

 Locus ID:
 1293

 UniProt ID:
 P12111

 Cytogenetics:
 2q37.3

**Protein Families:** Druggable Genome

**Protein Pathways:** ECM-receptor interaction, Focal adhesion

MW: 113.2 kDa

**Gene Summary:** This gene encodes the alpha-3 chain, one of the three alpha chains of type VI collagen, a

beaded filament collagen found in most connective tissues. The alpha-3 chain of type VI collagen is much larger than the alpha-1 and -2 chains. This difference in size is largely due to an increase in the number of subdomains, similar to von Willebrand Factor type A domains, that are found in the amino terminal globular domain of all the alpha chains. These domains have been shown to bind extracellular matrix proteins, an interaction that explains the importance of this collagen in organizing matrix components. Mutations in the type VI collagen genes are associated with Bethlem myopathy, a rare autosomal dominant proximal myopathy with early childhood onset. Mutations in this gene are also a cause of Ullrich congenital muscular dystrophy, also referred to as Ullrich scleroatonic muscular dystrophy, an autosomal recessive congenital myopathy that is more severe than Bethlem myopathy. Multiple transcript variants have been identified, but the full-length nature of only some of

these variants has been described. [provided by RefSeq, Jun 2009]