

## Product datasheet for **SC305758**

### Collagen VI (COL6A2) (NM\_058175) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen VI (COL6A2) (NM_058175) Human Untagged Clone
Tag:	Tag Free
Symbol:	Collagen VI
Synonyms:	BTHLM1; PP3610; UCMD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >SC305758 representing NM\_058175.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGCTCCAGGGCACCTGCTCCGTGCTCTGTCTGGGGAATCCTGGGGCCATCCAGGCCAGCAGCAG
GAGGTCATCTCGCCGGACACTACCGAGAGAAACAACACTGCCAGAGAAGACCGACTGCCCATCCAC
GTGTACTTCGTGCTGGACACCTCGGAGAGCGTACCATGCAGTCCCCACGGACATCCTGCTCTCCAC
ATGAAGCAGTTTCGTGCCGAGTTCATCAGCCAGCTGCAGAACGAGTTCTACCTGGACCAGGTGGCGCTG
AGCTGGGCTACGGCGCCTGCACCTTCTGACCAGGTGGAGGTGTTAGCCACCGGGCAGCGACCCGG
GCCTCCTTCAAGAACCTGCAGGGCATCAGCTCCTTCCGCCGGCACCTTACCGACTGCGCGCTG
GCCAACATGACGGAGCAGATCCGGCAGGACCGCAGCAAGGGCACCGTCCACTTCGCCGTGGTCAAC
GACGGCCACGTCACGGCAGCCCTGCGGGGGCATCAAGCTGCAGGCCGAGCGGGCCCGCAGGAGGGC
ATCCGGCTCTTCGCCGTGGCCCCAACCAAGACCTGAAGGAGCAGGGCCTGCGGGACATCGCCAGCAG
CCGCACGAGCTTACCGAACGACTACGCCACCATGCTGCCGACTCCACCGAGATCGACCAGGACACC
ATCAACCGCATCATCAAGGTATGAAACACGAAGCCTACGGAGAGTGCTACAAGGTGAGCTGCCTGGAA
ATCCCTGGGCCCTCTGGCCCCAAGGGCTACCGTGGACAGAAGGGTGCCAAGGGCAACATGGGTGAGCCG
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GGAGACCTGGAAACGGGGCCCGACGGTTACCCGGGGAAGCAGGGAGTCCAGGGGAGCAGGAGAC
CAAGCGGCAAGGGGACCCCTGGCCGCCAGGACGCAGAGGGCCCCGGGAGAAATCGGGCCAAGGGA
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GGGCCCGCGGACCCAAAGGCGAGCCGGGGCGCAGGGGAGACCCCGGCACCAAGGGCAGCCAGGCAGC
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AACAAAGGAGCCAAGGGAGACCGAGGCTTGCCTGGACCCAGAGGCCCCAGGGAGCTCTGGGGAGCCC
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CCCGGCCACGCGGCCCGAGGGAGGCCGAGGCGACTTTGGCTTAAAGGAGAACCTGGGAGGAAAGGA
GAGAAAGGAGAGCCTGCGGATCCTGGTCCCCTGGTGGCCAGGCCCTCGGGGCCAAGAGGAGTCCCA
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AGGGAGACCTGCGGGTGTGCGACTGTGAGAAGCGCTGTGGCGCCCTGGACGTGGTCTTCGTCATCGAC
AGCTCCGAGAGCATTGGGTACACCAACTTCACACTGGAGAAGAACTTCGTCATCAACGTGGTCAACAGG
CTGGGTGCCATCGCTAAGGACCCCAAGTCCGAGACAGGGACGCGTGTGGGCGTGGTGCAGTACAGCCAC
GAGGGCACCTTTGAGGCCATCCAGCTGGACGACGAACGTATCGACTCCCTGTGCGAGTTCAGGAGGCT
GTCAAGAACCTCGAGTGGATTGCGGGCGGCACCTGGACACCCTCAGCCCTCAAGTTTGCCTACGACCGC
CTCATCAAGGAGAGCCGGCGCCAGAAGACAGTGTGTTTGGGTGGTATCACGGACGGGCGCCACGAC
CGGGACATGTTCCACGAGAAGCAGAGAGTGAACCTTACTCCATCGCCTGCGACAAGCCACAGCAG
GTGCGCAACATGACGCTGTTCTCCGACCTGGTGGTGTGAGAAGTTTCATCGATGACATGGAGGACGTCCTC
TGCCCGGACCCTCAGATCGTGTGCCAGACCTTCCTGCCAACAGGTTTGGACGGAGCTGTTTTGTGC
TGA
AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGAT
ATCCTGGATTACAAGGATGACGACGATAAGGTTTAA
  
```

**Restriction Sites:** SgfI-RsrII  
**ACCN:** NM\_058175  
**Insert Size:** 2487 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](mailto: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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_058175.2](#)

**RefSeq Size:** 3461 bp

**RefSeq ORF:** 2487 bp

**Locus ID:** 1292

**UniProt ID:** [P12110](#)

**Cytogenetics:** 21q22.3

**Protein Families:** Secreted Protein

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

**MW:** 87.3 kDa

**Gene Summary:**

This gene encodes one of the three alpha chains of type VI collagen, a beaded filament collagen found in most connective tissues. The product of this gene contains several domains similar to von Willebrand Factor type A domains. 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 this gene are associated with Bethlem myopathy and Ullrich scleroatonic muscular dystrophy. Three transcript variants have been identified for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2C2a') encodes the shortest polypeptide. The last exon in this variant results in the use of a stop codon that shortens the protein by 192 amino acids compared to the full-length protein, although the transcripts are nearly the same length.