

Product datasheet for **SC303473**

Collagen VI (COL6A3) (NM_004369) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen VI (COL6A3) (NM_004369) Human Untagged Clone
Tag:	Tag Free
Symbol:	COL6A3
Synonyms:	BTHLM1; DYT27; UCMD1
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_004369, the custom clone sequence may differ by one or more nucleotides

```

ATGAGGAAACATCGGCACTTGCCCTTAGTGCCGCTCTTTGCCTCTTTCTCTCAGGCTTT
CCTACAACCTATGCCAGCAGCAGCAAGCAGATGTCAAAAATGGTGCGGCTGCTGATATA
ATATTTCTAGTGGATTCTCTTGGACCATTGGAGAGGAACATTTCCAACCTGTTTCGAGAG
TTTCTATATGATGTTGTAATACTCTTAGCTGTGGGAGAAAATGATTTCCATTTTGCTCTG
GTCCAGTTCACGGAAACCCACATACCGAGTTCCTGTTAAATACGTATCGTACTAAACAA
GAAGTCTTTCTCATATTTCCAACATGTCTTATATTGGGGGAACCAATCAGACTGAAAAA
GGATTAGAATACATAATGCAAAGCCACCTACCAAGGCTGCTGGAAGCCGGGCCGCTGAC
GGAGTCCCTCAGTTATCGTAGTGTTAACTGATGGACACTCGAAGGATGGCCTTGCTCTG
CCCTCAGCGGAACCTTAAGTCTGCTGATGTTAACGTGTTTGCAATTGGAGTTGAGGATGCA
GATGAAGGAGCGTTAAAAGAAATAGCAAGTGAACCGCTCAATATGCATATGTTCAACCTA
GAGAATTTTACCTCACTTCATGACATAGTAGGAAACTTAGTGCTCTGTGTGCATTCATCC
GTGAGTCCAGAAAGGGCTGGGGACACGGAAACCTTAAAGACATCACAGCACAAGACTCT
GCTGACATTATTTTCTTATTGATGGATCAAACAACACCGGAAGTGTCAATTTTCGAGTC
ATTCTCGACTTCCTTGTAATCTCCTTGAGAACTCCCAATTGGAACCTCAGCAGATCCGA
GTGGGGTGGTCCAGTTTAGCGATGAGCCAGAACCATGTTCTCCTTGGACACCTACTCC
ACCAAGGCCAGTTCTGGGTGCAGTGAAGCCCTCGGGTTTGCTGGTGGGGAGTTGGCC
AATATCGGCTCGCCCTTGATTTCTGTTGGTGGAGAACCCTTACCCGGGCAGGGGCGAGC
CGCGTGGAGGAAGGGTTCCTCAGGTGCTGGTCTCATAAGTGCCGGCCTTCTAGTGAC
GAGATTCGCTACGGGTGGTAGCACTGAAGCAGGCTAGCGTGTCTCATTTCGGCCTTGGG
GCCAGGCCGCTCCAGGGCAGAGCTTCAGCACATAGCTACCGATGACAACCTTGGTGTTT
ACTGTCCCGAATTCCGTAGCTTTGGGGACCTCCAGGAGAAATTAAGTCCGTTACATTGTT
GGCGTGGCCAAAGGCACATTGTCTTGAACCGCAACCATTTGCACACAAGTCATTGAA
GTCAACAAGAGAGACATAGTCTTCTGGTGGATGGCTCATCTGCACTGGGACTGGCCAAC
TTCAATGCCATCCGAGACTTCATTGCTAAAGTCATCCAGAGGCTGGAAATCGGACAGGAT
CTTATCCAGGTGGCAGTGGCCAGTATGCAGACTGTGAGGCCTGAATTTTATTTCAT
ACCCATCCAACAAAAAGGGAAGTCATAACCGCTGTGCGGAAAAATGAAGCCCTGGACGGC
TCGGCCCTGTACCGGGCTCTGCTCTAGACTTTGTTTCGTAACAACCTATTCACGAGTTCA
GCCGGCTACCGGGCTGCCGAGGGGATTCCTAAGCTTTTGGTGCTGATCACAGGTGGTAAG
TCCTAGATGAAATCAGCCAGCTGCCAGGAGCTGAAGAGAAGCAGCATAATGGCCTTT

```



[View online »](#)

GCCATTGGGAACAAGGGTGCCGATCAGGCTGAGCTGGAAGAGATCGCTTTCGACTCCTCC
 CTGGTGTTCATCCCAGCTGAGTTCGAGCCGCCCATTCGAAGGCATGCTGCCTGGCTTG
 CTGGCACCTCTCAGGACCTCTCTGGAACCCCTGAAGTTCACCAAAACAAAGGGATATC
 ATCTTTCTTTGGATGGATCAGCCAACGTTGAAAAACCAATTTCCCTTATGTGCGCGAC
 TTTGTAATGAACCTAGTTAACAGCCTTGATATTGGAATGACAATATTCGTGTTGGTTTA
 GTGCAATTTAGTGACACTCCTGTAACGGAGTTCTTTAAACACATACCAGACCAAGTCA
 GATATCTTGGTCATCTGAGGCAGCTGCAGCTCCAGGGAGTTTCGGCCCTGAACACAGGC
 TCAGCCCTAAGCTATGTCTATGCCAACCACTTCACGGAAGCTGGCGGCAGCAGGATCCGT
 GAACACGTGCCGAGCTCCTGCTTCTGCTCACAGCTGGGAGTCTGAGGACTCCTATTTG
 CAAGCTGCCAACGCCCTTGACACGCGCGGCATCCTGACTTTTTGTGTGGGAGCTAGCCAG
 GCGAATAAGGCAGAGCTTGAGCAGATTGCTTTAAACCAAGCCTGGTGTATCTCATGGAT
 GATTTTCAGCTCCCTGCCAGCTTTGCCTCAGCAGCTGATTCAGCCCTAACACATATGTT
 AGTGGAGGTGTGGAGGAAGTACCACTCGCTCAGCCAGAGCAAGCGAGACATTCTGTTT
 CTCTTTGACGGCTCAGCCAATCTTGTGGCCAGTTCCTGTTGTCCGTGACTTTCTAC
 AAGATTATCGATGAGCTCAATGTGAAGCCAGAGGGGACCCGAATTGCGGTGGCTCAGTAC
 AGCGATGATGTCAAGGTGGAGTCCCGTTTTGATGAGCACCAGAGTAAGCCTGAGATCCTG
 AATCTTGTGAAGAGAATGAAGATCAAGACGGGCAAGCCCTCAACCTGGGCTACGCGCTG
 GACTATGCACAGAGGTACATTTTTGTGAAGTCTGCTGGCAGCCGGATCGAGGATGGAGTG
 CTTTCAGTTCCTGGTGTCTGCTGGTGCAGGAAGTCACTGACCGTGTGGATGGGCCAGCA
 AGTAACCTGAAGCAGAGTGGGGTGTGCCTTTTCATCTTCAAGCCAAGAAGCAGACCCCT
 GCTGAGTTAGAGCAGATCGTGTCTCCAGCGTTTATCCTGGTGCAGAGTTCGTTCCC
 AAGATTGGAGATCTTCCACAGATAGTGAATCTTTAAATCAGTGCACAACGGAGCA
 CCAGACCAGTTTCAGGTGAAAAGGACGTGGTGTCTGCTTGTGATGGCTCTGAGGGCGTC
 AGGAGCGCTTCCCTCTGTTGAAAGAGTTTGTCCAGAGAGTGGTGGAAAGCCTGGATGTG
 GGCCAGGACCGGGTCCGCGTGGCCGTGGTGCAGTACAGCGACCGGACAGGCCCGAGTTC
 TACCTGAATTCATACATGAACAAGCAGGACGTCGTCACGCTGTCCGCCAGCTGACCCTG
 CTGGGAGGGCCGACCCCAACACCGGGCCGCCCTGGAGTTTGTCTGAGGAACATCCTG
 GTCAGCTCTGCGGAAGCAGGATAACAGAAGGTGTGCCCCAGCTGCTGATCGTCTCACG
 GCCGACAGGTCTGGGATGATGTGCGGAACCCCTCCGTGGTGTGAAGAGGGGTGGGGCT
 GTGCCCATTTGGCATTGGCATCGGAACGCTGACATCACAGAGATGCAGACCATCTCCTTC
 ATCCCGGACTTTGCCGTGGCCATTTCCACCTTTGCCAGCTGGGACCGTCCAACAGGTC
 ATCTCTGAGAGGGTGACCCAGCTCACCCGCGAGGAGCTGAGCAGGCTGCAGCCGGTGTG
 CAGCCTTACCGAGCCAGGTGTTGGTGGCAAGAGGGACGTGGTCTTTCTCATCGATGGG
 TCCCAAAGTGCCGGGCTGAGTTCAGTACGTTTCGACCCCTCATAGAGAGGCTGGTTGAC
 TACCTGGACGTGGGCTTTGACACCACCCGGGTGGCTGTCCAGTTCAGCGATGACCCC
 AAGGTGGAGTTCCTGTGAACGCCCATTCAGCAAGGATGAAGTGCAGAACCGGTGCAG
 CGGCTGAGGCCAAGGGAGGGCGGCAGATCAACGTGGGCAATGCCCTGGAGTACGTGTCC
 AGGAACATCTTCAAGAGGCCCTGGGGAGCCGATTGAAGAGGGCGTCCCGCAGTTCCTG
 GTCCTCATCTCGTCTGGAAGTCTGACGATGAGGTGGACGACCCGGCGGTGGAGTCAAG
 CAGTTTGGCGTGGCCCTTTACGATCGCCAGGAACGACAGACCAGGAGGAGCTGGTGAAG
 ATCTCGCTGAGCCCCGAATATGTGTTCTCGGTGAGCACCTTCGGGAGCTGCCAGCCTG
 GAGCAGAACTGCTGACGCCATCACGACCCTGACCTCAGAGCAGATCCAGAAGCTCTTA
 GCCAGCACTCGTATCCACCTCCAGCAGTTGAGAGTGTGCTGCAGACATTGTCTTTCTG
 ATCGACAGCTCTGAGGGAGTTAGCCAGATGGCTTTGCACATATTCGAGATTTTGTAGC
 AGGATTGTTGAAGACTCAACATCGGCCAGTAAAGTGAAGTGGGGTGTGCGAGTTC
 AGCAATGATGCTTCCAGAACTTCTATCTGAAAACCTACAGATCCAGGCCCGGTGCTG
 GACGCCATACGGGCCTGAGGCTCAGAGGGGGTCCCCACTGAACACTGGCAAGGCTCTC
 GAATTTGTGGCAAGAACTCTTTGTTAAGTCTGCGGGGAGTTCGATAGAAGACGGGGTG
 CCCCACACCTGGTCTGCTGGTGGTGGAAAATCCCAGGACGATGTGTCCAGGTTCCGC
 CAGGTGATCCGTTCTCGGGCATTGTGAGTTTAGGGTAGGAGACCGGAACATCGACAGA
 ACAGAGCTGCAGACCATCAACATGACCCAGACTGGTCTTACAGTGGCAGAGTTTCA
 GAGTTCCCAACATAGAAGAAAGATCATGAACTGTTTGGACCTCCGACGCACTCCT

GCACCTCCAGGGGTGGACACCCCTCCTCCTTCACGGCCAGAGAAGAAGAAAGCAGACATT
 GTGTTCTGTTGGATGGTTCCATCAACTTCAGGAGGGACAGTTTCCAGGAAGTGCTTCGT
 TTTGTGTCTGAAATAGTGGACACAGTTTATGAAGATGGCGACTCCATCCAAGTGGGGCTT
 GTCCAGTACAACCTCTGACCCACTGACGAATTTCTCCTGAAGGACTTCTCTACCAAGAGG
 CAGATTATTGACGCCATCAACAAAGTGGTCTACAAAGGGGAAGACACGCCAACACTAAG
 GTGGGCTTGAGCACCTGCGGGTAAACCACTTTGTGCCTGAGGCAGGCAGCCGCCTGGAC
 CAGCGGTCCTCAGATTGCCTTTGTGATCACGGGAGGAAGTCGGTGGAAAGATGCACAG
 GATGTGAGCCTGGCCCTCACCCAGAGGGGGTCAAAGTGTGGCTGGAGTGAGGAAT
 ATCGACTCGGAGGAGTTGGAAAGATAGCGTCCACAGCGCCACAGCGTTCCGCGTGGGC
 AACGTCCAGGAGCTGTCCGAACTGAGCGAGCAAGTTTTGGAACTTTGCATGATGCGATG
 CATGAAACCCCTTGGCCCTGGTGAAGTGTGCTGCCAAAGCTTGAATCTGGATGTGATT
 CTGGGGTTTGTGTTCTAGAGACCAGAATGTTTTTGTGGCCAGAAGGGCTTCGAGTCC
 AAGGTGGACGCCATCTTGAACAGAATCAGCCAGATGCACAGGGTCAGCTGCAGCGGTGGC
 CGCTCGCCACCCTGCGTGTGTCAGTGGTGGCCAAACACGCCCTCGGGCCCGGTGGAGGCC
 TTTGACTTTGACGAGTACCAGCCAGAGATGCTCGAGAAGTTCCGGAACATGCGCAGCCAG
 CACCCCTACGTCCCTCACGGAGGACACCCGAAGGTCTACCTGAACAAGTTAGACAGTCC
 TCGCCGGACAGCGTGAAGGTGGTCATTTTACTGATGGAGCAGACGGAGATCTGGCT
 GATTTACACAGAGCATCTGAGAACCTCCGCCAAGAAGGAGTCCGTGCCTTGATCCTGGT
 GGCCTTGAACGAGTGGTCAACTTGGAGCGGCTAATGCATCTGGAGTTTGGGCGAGGGTTT
 ATGTATGACAGGCCCCCTGAGGCTTAACTTGCTGGACTTGGATTATGAACTAGCGGAGCAG
 CTTGACAACTTCCCGAGAAAGCTTGTGTGGGGTTCCCTGCAAGTGTCTGGGCAGAGG
 GGAGACCGCGGGCCATCGGCAGCATCGGGCCAAAGGGTATTCTGGAGAAGACGGCTAC
 CGAGGCTATCCTGGTGTGAGGGTGGACCGGTGAGCGTGGTCCGCTGGTGTGAACGGC
 ACTCAAGTTTTCCAGGGTGCCTGGGCCAGAGAGGAGTAAAGGGTCTCGGGGATTTCCCA
 GGAGAGAAGGGCAAGTAGGAGAAATTGGACTGGATGGTCTGGATGGTGAAGATGGAGAC
 AAAGGATTGCCTGGTCTTCTGAGAGAAAAGGAATCCTGGAAGAAGGGGTGATAAAGGA
 CCTCGAGGAGAGAAAGGAGAAAGAGGAGATGTTGGGATTCGAGGGGACCCGGTAACCCA
 GGACAAGACAGCCAGGAGAGAGGACCCAAAGGAGAAACCGGTGACCTCGGCCCATGGGT
 GTCCCAGGAGAGATGGAGTACCTGGAGGACCTGGAGAACTGGGAAGAATGGTGGCTTT
 GGCCGAAGGGGACCCCCGGAGCTAAGGGCAACAAGGGCGGTCTGGCCAGCCGGCTTT
 GAGGGAGAGCAGGGGACCAGAGGTGCACAGGGCCAGCTGGTCTGCTGGTCTCCAGGG
 CTGATAGGAGAACAAGGCATTTCTGGACCTCGGGGAAGCGGAGGTGCCGCTGGTGTCTCT
 GGAGAACGAGGCAAGACCGGTCCACTGGGAAGAAAGGGTGGCCCGGAGGCCAGGACCA
 AAAGGAGGAATCGGAACCGGGGCCCTCGTGGGAGACGGGAGATGACGGGAGAGACGGA
 GTTGGCAGTGAAGGACGCAGAGGCCAAAAAGGAGAAAGAGGATTCCCTGGATACCCAGGA
 CCAAAGGGTAACCCAGGTGAACCTGGGCTAAATGGAACAACAGGACCCAAAGGCATCAGA
 GGCCGAAGGGGAAATTCGGGACCTCCAGGGATAGTTGGACAGAAGGGAGACCCCTGGCTAC
 CCAGGACCAGCTGGTCCCAAGGGCAACAGGGGCGACTCCATCGATCAATGTGCCCTC
 CAAAGCATCAAAGATAAATGCCCTTGCTGTTACGGGCCCTGGAGTGCCCGCTTTCCCA
 ACAGAACTAGCCTTTGCTTTAGACACCTCTGAGGGAGTCAACCAAGACACTTTTCGGCCGG
 ATGCGAGATGTGGTCTTGTGATTTGTGAATGACCTGACCATTTGCTGAGAGCAACTGCCCA
 CGGGGGGCCCGGGTGGTGTGGTCACTACAACAACGAGGTGACCACGGAGATCCGGTTT
 GCTGACTCCAAGAGGAAGTCGGTCTCCTGGACAAGATTAAGAACCTTCAGGTGGCTCTG
 ACATCCAAACAGCAGAGTCTGGAGACTGCCATGTCGTTTGTGGCCAGGAACACATTTAAG
 CGTGTGAGGAACGGATTCTAATGAGGAAAGTGGCTGTTTTCTCAGCAACACACCCACA
 AGAGCATCCCCACAGCTCAGAGAGGCTGTGCTCAAGCTCTCAGATGCGGGGATCACCCCC
 TTGTTCTTACAAGGCAGGAAGACCGGCAGCTCATCAACGCTTTGCAGATCAATAACACA
 GCAGTGGGGCATGCGCTTGTCTGCCTGCAGGGAGAGACCTCACAGACTTCTGGAGAAT
 GTCTCACGTGTGATGTTTGGCTTGGACATCTGCAACATCGACCCATCCTGTGGATTTGGC
 AGTTGGAGGCCTTCTTCAGGGACAGGAGCGGCAGGGAGCGATGTGGACATCGACATG
 GCTTTTCTTAGACAGCGCTGAGACCACCACCTGTTCCAGTTCAATGAGATGAAGAAG
 TACATAGCGTACCTGGTCAGACAACCTGGACATGAGCCAGATCCCAAGGCCTCCCAGCAC

```
TTCGCCAGAGTGGCAGTTGTGCAGCACGCGCCCTCTGAGTCCGTGGACAATGCCAGCATG
CCACCTGTGAAGGTGGAATTCTCCCTGACTGACTATGGCTCCAAGGAGAAGCTGGTGGAC
TTCCTCAGCAGGGGAATGACACAGTTGCAGGGAACCGGGCCTTAGGCAGTGCCATTGAA
TACACCATAGAGAATGTCTTTGAAAGTGCCCAAAACCCACGGGACCTGAAAATTGTGGTC
CTGATGCTGACGGGCGAGGTGCCGGAGCAGCAGCTGGAGGAGGCCAGAGAGTCATCCTG
CAGGCCAAATGCAAGGGCTACTTCTTCGTGGTCCTGGGCATTGGCAGGAAGGTGAACATC
AAGGAGGTATACACCTTCGCCAGTGAGCCAAACGACGTCTTCTCAAATTAGTGGACAAG
TCCACCGAGCTCAACGAGGAGCCTTTGATGCGCTTCGGGAGGCTGTTGCCATCCTTCGTC
AGCAGTGAAAATGCTTTTTACTTGTCCCCAGATATCAGGAAACAGTGTGATTGGTTCCAA
GGGGACCAACCCACAAGAACCTTGTGAAGTTGGTCACAAACAAGTAAATGTTCCGAAT
AACGTTACTTCAAGTCCTACATCCAACCCAGTGACGACAACGAAGCCGGTGACTACGACG
AAGCCGGTGACCACCACAACAAAGCCTGTAACCACCACAACAAAGCCTGTGACTATTATA
AATCAGCCATCTGTGAAGCCAGCCGCTGCAAAGCCGGCCCTGCGAAACCTGTGGCTGCC
AAGCCTGTGGCCACAAGATGGCCACTGTTAGACCCCCAGTGGCGGTGAAGCCAGCAACG
GCAGCGAAGCCTGTAGCAGCAAAGCCAGCAGCTGTAAGACCCCCGCTGTGCTGTGCA
AAACCAGTGGCGACCAAGCCTGAGGTCCCTAGGCCACAGGCAGCCAAACCAGCTGCCACC
AAGCCAGCCACCACTAAGCCCATGGTTAAGATGTCCCCTGAAGTCCAGGTGTTTGGATA
ACAGAGAACAGCGCCAAACTCCACTGGGAGAGGGCTGAGCCCCCGGTCTTATTTTTAT
GACCTCACCGTCACCTCAGCCATGATCAGTCCCTGGTTCTGAAGCAGAACCTCACGGTC
ACGGACCGCGTCATTGGAGGCCTGCTCGCTGGGCAGACATACCATGTGGCTGTGGTCTGC
TACCTGAGGTCTCAGGTCAGAGCCACCTACCACGGAAGTTTCAGTACAAAGAAATCTCAG
CCCCACCTCCACAGCCAGCAAGGTCAGCTTCTAGTTCAACCATCAATCTAATGGTGAGC
ACAGAACCATTTGGCTCTCACTGAAACAGATATATGCAAGTTGCCGAAAGACGAAGGAAT
TGCAGGGATTTCATATTAATAATGGTACTATGATCCAACACCAAAAGCTGTGCAAGATTC
TGGTATGGAGGTTGTGGTGGAAACGAAAACAAATTTGGATCACAGAAAGATGTGAAAAG
GTTTGGCTCCTGTGCTCGCAAACCCGGAGTCATCAGTGTGATGGGAACCTAA
```

Restriction Sites:

Please inquire

ACCN:

NM_004369

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_004369.2](#), [NP_004360.2](#)

RefSeq Size:	10562 bp
RefSeq ORF:	9534 bp
Locus ID:	1293
UniProt ID:	P12111
Cytogenetics:	2q37.3
Protein Families:	Druggable Genome
Protein Pathways:	ECM-receptor interaction, Focal adhesion
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the full-length isoform (1).</p>