

Product datasheet for **SC305744**

Collagen VI (COL6A3) (NM_057164) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen VI (COL6A3) (NM_057164) 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_057164, the custom clone sequence may differ by one or more nucleotides

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ATGAGGAAACATCGGCACTTGCCCTTAGTGCCGCTCTTTGCCTCTTCTCTCAGGCTTT
CCTACAACCTATGCCAGCAGCAGCAAGCAGTCATTGAAGTCAACAAGAGACATAGTC
TTCCTGGTGGATGGCTCATCTGCACTGGGACTGGCCAATTCAATGCCATCCGAGACTTC
ATTGCTAAAGTCATCCAGAGGCTGGAAATCGGACAGGATCTTATCCAGGTGGCAGTGCC
CAGTATGCAGACACTGTGAGGCCTGAATTTTATTCAATACCCATCCAACAAAAAGGAA
GTCATAACCGCTGTGCGGAAAAATGAAGCCCTGGACGGCTCGGCCCTGTACACGGGCTCT
GCTCTAGACTTTGTTCGTAACAACCTATTCACGAGTTCAGCCGGCTACCGGGCTGCCGAG
GGGATTCCTAAGCTTTTGGTGCTGATCACAGGTGGTAAGTCCCTAGATGAAATCAGCCAG
CCTGCCAGGAGCTGAAGAGAAGCAGCATAATGGCCTTTGCCATTGGGAACAAGGGTGCC
GATCAGGCTGAGCTGGAAGAGATCGCTTTCGACTCCTCCCTGGTGTTCATCCCAGCTGAG
TTCCGAGCCGCCATTGCAAGGCATGTGCTGGCTTGTGTCACCTCTCAGGACCCCTC
TCTGGAACCCCTGAAGTTCACCTCAAACAAAAGGATATCATCTTTCTTTTGGATGGATCA
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GCCAACCACTTACGGAAGCTGGCGGCAGCAGGATCCGTGAACACGTGCCGCAGCTCCTG
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CGCGCGGGCATCCTGACTTTTTGTGTTGGAGCTAGCCAGGCGAATAAGGCAGAGCTTGAG
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TTGCCTCAGCAGCTGATTCAGCCCTAACCACATATGTTAGTGGAGGTGTGGAGGAAGTA
CCTACTCGCTCAGCCAGAGAGCAAGCGAGACATTCTGTTCTCTTTGACGGCTCAGCCAAT
CTTGTTGGGCCAGTTCCTGTTGTCCGTGACTTTCTCTACAAGATTATCGATGAGCTCAAT
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TCCCGTTTTGATGAGCACCAGAGTAAGCCTGAGATCCTGAATCTTGTAAGAGAATGAAG
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TTTGTGAAGTCTGCTGGCAGCCGGATCGAGGATGGAGTGCTTCAGTTCTGGTGCTGCTG
GTCGCAGGAAGGTCATCTGACCGTGTGGATGGGCCAGCAAGTAACCTGAAGCAGAGTGGG
GTTGTGCTTTTCTCTTCCAAGCAAGAACGCAGACCCCTGCTGAGTTAGAGCAGATCGTG

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CTGTCTCCAGCGTTTATCCTGGCTGCAGAGTCGCTTCCCAAGATTGGAGATCTTCATCCA
CAGATAGTGAATCTCTTAAAATCAGTGCACAACGGAGCACCAGCACCAGTTTCAGGTGAA
AAGGACGTGGTGTCTGCTTATGGCTCTGAGGGCGTCAGGAGCGGCTTCCCTCTGTTG
AAAGAGTTTGCCAGAGAGTGGTGGAAAGCCTGGATGTGGGCCAGGACCGGGTCCGCGTG
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CTCACCCGCGAGGAGCTGAGCAGGCTGCAGCCGGTGTTCAGCCTCTACCGAGCCAGGT
GTTGGTGGCAAGAGGGACGTGGTCTTTCTCATCGATGGGTCCCAAAGTCCCGGGCCTGAG
TTCCAGTACGTTTCGACCCCTCATAGAGAGGCTGGTTGACTACCTGGACGTGGGCTTTGAC
ACCACCCGGTGGCTGTATCCAGTTCAGCGATGACCCCAAGGTGGAGTTCCTGTGAAC
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CGGCAGATCAACGTGGGCAATGCCCTGGAGTACGTGTCCAGGAACATCTTCAAGAGGCC
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TCTGACGATGAGGTGGACGACCCGGCGTGGAGCTCAAGCAGTTTGGCGTGGCCCTTTC
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GTGTTCTCGGTGAGCACCTTCCGGGAGCTGCCAGCCTGGAGCAGAACTGCTGACGCC
ATCACGACCCTGACCTCAGAGCAGATCCAGAAGCTCTTAGCCAGCACTCGCTATCCACCT
CCAGGTGAGATGGGGCGTCCGAGGTTTCCTTGGAGCATTTTCCATATGA

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- Restriction Sites:** Please inquire
- ACCN:** NM_057164
- 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_057164.2](#), [NP_476505.2](#)
- RefSeq Size:** 10061 bp
- RefSeq ORF:** 9033 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 (2) lacks two alternate in-frame exons in the 5' coding region, lacks several exons in the 3' coding region, but contains an alternate 3' coding region and 3' UTR, compared to variant 1. The encoded isoform (2) is significantly shorter and has a distinct C-terminus, compared to isoform 1.</p>