

Product datasheet for **SC110859**

Collagen VI (COL6A1) (NM_001848) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen VI (COL6A1) (NM_001848) Human Untagged Clone
Tag:	Tag Free
Symbol:	Collagen VI
Synonyms:	BTHLM1; OPLL; UCHMD1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC110859 sequence for NM_001848 edited (data generated by NextGen Sequencing)

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ATGAGGGCGGCCCGTGTCTGCTGCCCCCTGCTGCTGCAGGCCCTGCTGGACAGCCGCGCAG
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CTCGTGGGGGGTCCCACCTGAAGGAGAATAAGTACCTGATTGTGGTACCGACGGGCAC
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GTCTCCAGGAAGGTGGCGCTGGGCTAG
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Clone variation with respect to NM_001848.2

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_001848 unedited
ATTTCCCCGCCCNTGCCGCAAAGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGC
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GCGCTGTGTGGTGACCGCAGGCCCGAGACATGAGGGCGGCCCGTGTCTGCTGCCCTGC
TGCTGCAGGCCTGCTGGACAGCCGCGCAGGATGAGCCGGAGACCCCGAGGGCCGTGGCCT
TCCAGGACTGCCCGTGGACCTGTTCTTTGTGCTGGACACCTCTGAGAGCGTGGCCCTGA
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TCACACCCGACCCTGGAGCCGCTGTGAGCATCATCGCCACGGACCACAGTACCGGC
GCAACTCNACGGGGTGACTGGGGCCAGACCCGACGCANAGGAGCCATCACCAGACATC
GAACCATCGTGGCATGATCANAATACGTGG
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_001848 unedited TCNAGNGATCGATTT TGAGGAGTGAAAACCTTTATTTGGAAAAATCAGCAACATGGGATATGGTTCAAAAAAAAA CACCGAAGGGGCAAAACCTAACATGAACATTGAAAGGGGGCCTTTGATAAAACGTGCAACA CCTCACTTTTCTTAGGAAAGAAAGGTTTGCCTTTCTAGTAAAACACAGCCCTCTGTG GCACCAAGGGGCTTTATGTCCAGTCCAGGCCAGTCTTTGCGGGAGGGAGGAGCAAAAC CGGGTTAGCACCCCTTAATCTCGAGGGTCTTGAGTGCAGCCAGCCCTCCGAGTACTCT CTGAGGTCGGGTCAATGCTGGTCAACAACGGCCCTCCAAGGCTGTAGGGCCAAAGTCCAA GCCCGTACCAACAGGACCTCAAGAAACGGGGCCCAATCCCCAAATTTATGTTTGCAA CGGCTCTGACCTTGGTTTCCAAAACAGACAAAAGCCATGGGTGCCCAAACCTGAA GAAAAAACTTGGTTTGGTTTAAATTGTAATAACTGTTAAGTGAAGATTGGTGGGAAA AACCCCTTTTGGGACAAAAGAAAGGAGGCTTATGCCGCACAAGCCCCAAAGGGCCTC TTGCTTAAGCTGGTGGGACCCACACAAAAGTGCCTTAGGAAAGAACCTCCCCGCGCCGG AAGGAAGCCGGCCACGAAGGCCCGCCAGAAAACCCCGGGTGGGGAAACCCAGTGGGGCCC CCTTCAGGTTGAACCCCAAGGCCCGCCAGGGGACCCCCCTAGGGTTA
Restriction Sites:	NotI-NotI
ACCN:	NM_001848
Insert Size:	4500 bp
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).
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:	<ol style="list-style-type: none"> 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_001848.1</u> , <u>NP_001839.1</u>
RefSeq Size:	4164 bp
RefSeq ORF:	3087 bp
Locus ID:	1291
UniProt ID:	<u>P12109</u>
Cytogenetics:	21q22.3
Domains:	VWA, Collagen
Protein Pathways:	ECM-receptor interaction, Focal adhesion

Gene Summary:

The collagens are a superfamily of proteins that play a role in maintaining the integrity of various tissues. Collagens are extracellular matrix proteins and have a triple-helical domain as their common structural element. Collagen VI is a major structural component of microfibrils. The basic structural unit of collagen VI is a heterotrimer of the alpha1(VI), alpha2(VI), and alpha3(VI) chains. The alpha2(VI) and alpha3(VI) chains are encoded by the COL6A2 and COL6A3 genes, respectively. The protein encoded by this gene is the alpha 1 subunit of type VI collagen (alpha1(VI) chain). Mutations in the genes that code for the collagen VI subunits result in the autosomal dominant disorder, Bethlem myopathy. [provided by RefSeq, Jul 2008]