

Product datasheet for **RG218757**

Collagen VI (COL6A2) (NM_058175) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen VI (COL6A2) (NM_058175) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	COL6A2
Synonyms:	BTHLM1; PP3610; UCMD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG218757 representing NM_058175
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCCAGGGCACCTGCTCCGTCTCTGCTCTGGGGAATCCTGGGGCCATCCAGGCCAGCAGCAGG
 AGGTCATCTCGCCGACACTACCGAGAGAAACAACAACCTGCCAGAGAAGACCGACTGCCCCATCCACGT
 GTACTTCGTGCTGGACACCTCGGAGAGCGTCACCATGCAGTCCCCACGGACATCCTGCTTTCCACATG
 AAGCAGTTCGTGCCGAGTTCATCAGCCAGCTGCAGAACGAGTTCTACCTGGACCAGGTGGCGCTGAGCT
 GGGCTACGGCGGCTGCACTTCTGACCAGGTGGAGGTGTTACAGCCACCGGGCAGCGACCGGGCCTC
 TTTCATCAAGAACCTGCAGGGCATCAGCTCCTCCGCCGCGCACCTTACCGACTGCGCGCTGGCCAAC
 ATGACGGAGCAGATCCGGCAGGACCGCAGCAAGGGCACCGTCCACTTCGCCGTGGTCATCACCGACGGCC
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 CTCTACCGCAACGACTACGCCACCATGCTGCCGACTCCACCGAGATCGACCAGGACACCATCAACCGCA
 TCATCAAGGTCATGAAACACGAAGCCTACGGAGAGTGCTACAAGGTGAGCTGCCTGGAAATCCCTGGGCC
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 CGGGCCCGCAGCGTTACCCGGGGGAAGCAGGGAGTCCAGGGGAGCGAGGAGACCAAGCGGCAAGGGGG
 ACCCTGGCCGCCCAGGACGCAGAGGGCCCCCGGAGAAAATCGGGGCAAGGGAAGCAAGGGGATCAAGG
 CAACAGTGGAGCCCCAGGAAGTCTGGTGTGAAAGGAGCCAAGGGCGGGCCTGGGCCCGCGGACCCAAA
 GCGAGCCCGGGCGCAGGGGAGACCCCGCACCAAGGGCAGCCAGGCAGCGATGGCCCCAAGGGGAGA
 AGGGGGACCTGGCCCTGAGGGGCCCGCGGCCTGGCTGGAGAGGTTGGCAACAAAGGAGCAAGGGAGA
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 GACCCCGGTGATGCAGGACCCCGTGGAGACTCAGGACAGCCAGGCCCAAGGGAGACCCCGCAGGCCTG
 GATTCAGTACCCAGGACCCCGAGGAGCACCCGGAGAAAAAGGCGAGCCCGGCCACCGGCCCGAGGG
 AGGCCGAGGCGACTTTGGCTTGAAGGAGAACCTGGGAGGAAAGGAGAGAAAGGAGACCTGCGGATCCT
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 CTGGAGACCCCGTCTACCGGAGTGTGACGTATGACCTACGTGAGGGAGACCTGCGGGTGTGCGACTG
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 GTGTGTTTGGGTGGTATCACGGACGGGCCACGACCCCTCGGGACGATGACCTCAACTGCGGGCGCT
 GTGCGACCGGACGTCACAGTGCAGGCCATCGGCATCGGGGACATGTTCCACGAGAAGCAGAGAGTGAA
 AACCTCTACTCCATCGCCTGCGACAAGCCACAGCAGGTGCGCAACATGACGCTGTTCTCCGACTGGTCG
 CTGAGAAGTTCATCGATGACATGGAGGACGTCCTCTGCCCGACCCCTCAGATCGTGTGCCAGACCTTCC
 CTGCCAAACAGGTTTGGACGGAGCTGTTTTGTGC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

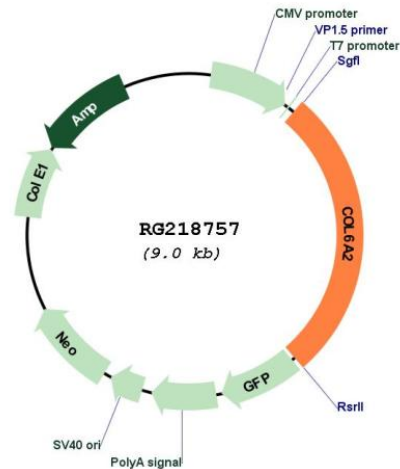
Protein Sequence: >RG218757 representing NM_058175
Red=Cloning site Green=Tags(s)

MLQGTCSVLLWLGILGAIQAQQEVI SPDTTERRNNNCPEKTD CPIHVYFVLDTSESVTMQSPTDILLFHM
KQFVPOFISQLQNEFYLDQVALSWRYGGLHFSQVEVFSPPGSDRASFIKNLQGISFRRGTFDTCALAN
MTEQIRQDRSKGTVHFVAVVITDGHVTGSPCGGIKLAERAREEGIRLFAVAPNQNLKEQGLRDIASTPHE
LYRNDYATMLPDSTEIDQDTINRIKVMKHEAYGECYKVSCL EIPGPSGPKGYRGQKGA KGNMGEPEGEPG
QKGRQGDPIEGPIGFPGPKGVPGFKGEKGEFGADGRKGAPGLAGKNGTDGQKGLGRIGPPGCKGDPGN
RGPDPGYPGEAGSPGERGDQGGKGDPRGRRGPPGEIGAKGSKGYQNSGAPGSPGVKGA KGGPGPRGPK
GEPGRRGDPGKSGSPGSDGPKGEKGDGPEGPRGLAGEVGNKGAKGDRGLPGPRGPQ GALGEPGKQGSRG
DPGDAGPRGDSGQPGKGDPRPGFSYGPGRGAPGEKGEPEGPRGPEGGRGDFGLKGEPRKGEKGEPADP
GPPGEPGPRGPRGVPGEPEGPPGDPGLTECDVMTYVRET CGCCDCEKRCGALDVVFVIDSSE SIGYTN
FTLEKNFVINVVNRLGAIKDPKSETGTRVGVVQYSHEGTFEAIQLDDERIDSLSSFKEAVKNLEWIAGG
TWTPSALKFAYDRLIKESRRQKTRVFAVVITDGRHDP RDDDLNLRALCDRDVTVTAIGIGDMFHEKHESE
NLYSIACDKPQQVRNMTLFSDLVAEKFIIDMEDVLC PDPQIVCPDLPCQTGLDGAVLC

SGP^{TR}RRLE - GFP Tag - V

Restriction Sites: Sgfl-RsrII

Plasmid Map:



ACCN: NM_058175

ORF Size: 2484 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 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 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:	NM_058175.2 , NP_478055.2
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
Gene Summary:	<p>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]</p>