

Product datasheet for **RG218704**

Collagen VI (COL6A2) (NM_058174) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen VI (COL6A2) (NM_058174) 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:

>RG218704 representing NM_058174
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCCAGGGCACCTGCTCCGTCTCTGCTCTGGGGAATCCTGGGGCCATCCAGGCCAGCAGCAGG
 AGGTCATCTCGCCGACACTACCGAGAGAAACAACACTGCCAGAGAAGACCGACTGCCCATCCACGT
 GTACTTCGTGCTGGACACCTCGGAGAGCGTCACCATGCAGTCCCCACGGACATCCTGCTTTCCACATG
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 CCCGAGACCGGCTGGCCCTCTGC

AGCGGACCGACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG218704 representing NM_058174
 Red=Cloning site Green=Tags(s)

MLQGTCSVLLWLGILGAIQAQQQEVISPDTTERRNNNCPEKTDPCIHVYFVLDTSESVTMQSPTDILLFHM
 KQFVPOFISQLQNEFYLDQVALSWRYGGLHFSDQVEVFSPPGSDRASFIKNLQGISFRRGTFTDCALAN
 MTEQIRQDRSKGTVHFVAVVITDGHVTGSPCGGIKLAERAREEGIRLFAVAPNQNLKEQGLRDIASHPHE
 LYRNDYATMLPDSTEINQDTINRIKVMKHEAYGECYKVSCLIPGPGSGPKGYRGQKGAKNMGEPGEPG
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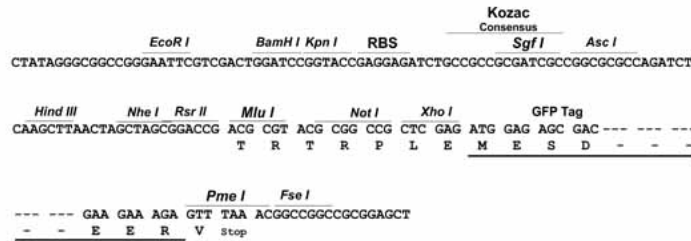
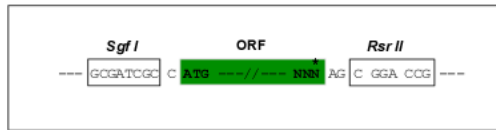
SGPTRRRLE - GFP Tag - V

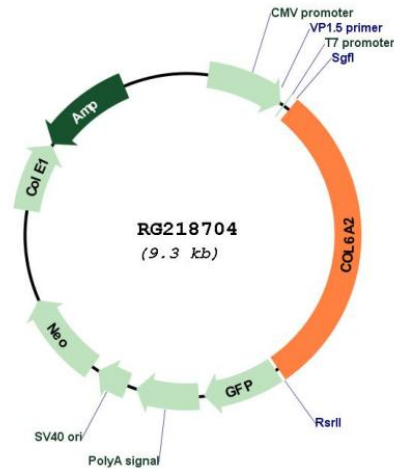
Restriction Sites:

SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_058174

ORF Size: 2754 bp

OTI Disclaimer: 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_058174.1](#), [NP_478054.1](#)

RefSeq Size: 3145 bp

RefSeq ORF: 2757 bp

Locus ID: 1292

UniProt ID: [P12110](#)

Cytogenetics: 21q22.3

Protein Families: Secreted Protein

Protein Pathways: ECM-receptor interaction, Focal adhesion

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]