

Product datasheet for **RG208562**

Collagen VI (COL6A1) (NM_001848) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen VI (COL6A1) (NM_001848) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Collagen VI
Synonyms:	BTHLM1; OPLL; UCHMD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG208562 representing NM_001848 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGGCGGCCGCTGCTGCTGCCCTGCTGCTGCAGGCCTGCTGGACAGCCGCGCAGGATGAGCCGG
AGACCCCGAGGGCCGTGGCCTTCCAGGACTGCCCGTGGACCTGTTCTTTGTGCTGGACACCTCTGAGAG
CGTGGCCCTGAGGCTGAAGCCCTACGGGGCCCTCGTGGACAAAGTCAAGTCTTCCACCAAGCGCTTCATC
GACAACCTGAGGGACAGGTACTACCGCTGTGACCGAAACCTGGTGTGGAACGCAGGCGCGCTGCACTACA
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GGACGCGGTCAAGTACTTTGGGAAGGGCACCTACACCGACTGCGCTATCAAGAAGGGGCTGGAGCAGCTC
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CTCGGTGGCCATCACACCCGACCACCTGGAGCCGCTGCTGAGCATCATCGCCACGGACCACAGTACCGG
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GGAGCCCCAGGACCTGCCGGACCCCTGGAGACCCGGGGCTGATGGGTGAAAGGGGAGAAGACGGCCCCG
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CCCCACATCCGCGTCTGGTACCGGCAAGACGGCCGAGTACGACGTGGCTACGGCGAGAGCCACCTGT
TCCGTGTCACAGCTACCAGGCCCTGCTCCGCGGTGTCTCCACCAGACAGTCTCCAGGAAGGTGGCGCT
GGGC
    
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG208562 representing NM_001848
 Red=Cloning site Green=Tags(s)

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MRAARALLPLLLQACWTA AQDEPETPRAVAFQDCPVDLFFVLDTSSESVALRLKPYGALVDKVKSF TKRFI
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LVGGSHLKENKYLIVVTDGHPLEGYKEPCGGLEDAVNEAKHLGVKVF SVAITPDHLEPRLSIIATDHTYR
RNFTAADWQSRDAEEAISQTIDTIVDMIKNNVEQVCCSFECQPARGPPGLRGDPGFEGERGKPLGPEK
GEAGDPGRPGDLGPVGYQGMKGEKGSRGPKGYKGEKGRGIDGVDGVKGEMGYPLPGCKGSPG
FDGIQPPGPKGDPGAFGLKGEKGEPGADGEAGRPSSGSGDEGQPGEPGPPGEKGEAGDEGNPDPDA
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TFTGEALQYTRDQLLPPSPNNRIALVITDGRSDTQRDTPNLNVL CSPGIQVSVGKIDVDFIPGSDQLN
VISQGLAPSQGRPGLSLVKENYAELEDAFLKNVTAQICIDKKCPDYTCPI TFSSPADITILLDGSASV
GSHNFDTTKRFAKRLAERFLTAGRTDPAHDVRAVAVVQYSGTGQQRPERASLQFLQNYTALASAVDAMDFI
NDATDVNDALGYVTRFYREASSGA AKRLLLFSDGNSQGATPAAIEKAVQEAQRAGIEIFVVVVGRQVNE
PHIRVLVTGKTA EYDVAYGESHLFRVPSYQALLRGVFHQTVSRKVALG
    
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TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001848

ORF Size: 3084 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_001848.2](#), [NP_001839.2](#)

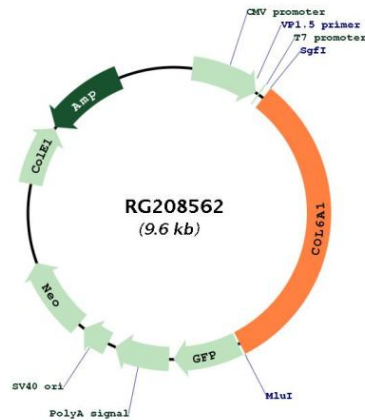
RefSeq Size: 4246 bp

RefSeq ORF: 3087 bp

Locus ID: 1291
UniProt ID: [P12109](#)
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]

Product images:



Circular map for RG208562