

## Product datasheet for **MC224424**

### Col2a1 (NM\_001113515) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Col2a1 (NM\_001113515) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Col2a1  
**Synonyms:** Co; Col2; Col2a; Col2a-1; Del; Del1; Dmm; L; Lpk; M100413; Rgsc4; Rgsc8; Rgsc413; Rgsc856  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC224424 representing NM\_001113515  
**Red**=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGATCCGCCTCGGGCTCCCCAGTCGCTGGTGTCTGACGCTGCTCATCGCCGCGGTCTACGGTGTC  
AGGGCCAGGATGCCCGAAAATTAGGGCCAAAGGGGCAGAAAGGAGAACCTGGAGATATCAGAGATATCAT  
AGGACCCAGAGGACCTCCTGGCCCTCAGGGACCTGCAGGTGAACAAGGACCCAGAGGTGATCGTGGTGAC  
AAGGGAGAAAAGGGTGCCTGGACCCCGTGGCAGAGATGGAGAACCTGGTACCCCTGGAATCCTGGCC  
CCGCTGGCCCTCCAGGTCCCCCTGGTCCCCCTGGCCTTAGTGCAGGAACTTCGCGGCTCAGATGGCTGG  
AGGGTATGACGAGAAGGCTGGTGGTGCCAGATGGGAGTCATGCAAGGGCCCATGGGCCCATGGGACCC  
CGTGGACCCCAAGGCCCTGCCGGTGCCCGGCGCCCTCAAGGATTTCAAGGCAATCCTGGTGAACCTGGCG  
AGCCTGGTGTCTCTGGTCCCATGGGTCCCCGAGGTCTCCTGGCCCTGCTGGAAAACCTGGTGACGACGG  
TGAAGCTGGGAAGCCCGAAAGTCTGGGGAAAGAGGCCTCCCTGGCCCTCAGGGTGTCTGGATTCCCA  
GGAACCCCGGTCTCCCCGGTGTCAAGGGTACAGAGGTTACCCAGGCCCTCGACGGTGTCTAAGGGGAAG  
CTGGTGTCCGGGTGTGAAGGGTGAAGTGGTTCCTGGTGAACAAGGATCCCCGGGCCAATGGGTCC  
CGTGGCCTGCCTGGTGAAGAGGACGGACTGGCCCTGCTGGTGTCTGGTGTCTGGGGTAAACGATGGC  
CAGCCAGGCCCGCTGGACCTCCGGTCTGTGGTCCCCGAGGTGGTCTGGTTCCTGGTGTCTCTG  
GTGCCAAGGGCGAAGCTGGTCCCACTGGTGTCTCGCGGTCTGAAGGTGCTCAAGGTTCTCGTGGCGAGCC  
TGGCAATCCTGGGTCCCCTGGGCTGCAGGTGCTTCTGGTAACCCAGGGACTGATGGTATTCTGGAGCC  
AAAGGATCCGCTGGTGTCTCTGGAATTGCTGGTCCCCCTGGTTCCTGGGCCCGTGGCCCTCCCGGT  
CTCAAGGTGCAACTGGTCCCCTGGCCCCAAAGGTGAGGCGGGTGAACCTGGCATTGCTGGCTTTAAAGG  
TGATCAAGGCCCAAGGGAGAGACTGGACCTGCTGGGCCCAAGGAGCCCTGGCCCCGCTGGTGAAGAA  
GGCAAACGAGGTGCTCGAGGAGAGCCGGTGGTGTGGACCAATCGGACCCCTGGAGAGAGAGGTGCTC  
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CAGTGGCTTACTGGTCCCAAGGGAGCCAACGGTGACCCGGTGTCTGGAGAACCTGGTCTTCTGGA  
GCCAGGGTCTTACCGGTGCGCCCTGGTGTGCTGCTCAAGGCAAAGTGGTCTTCTGGAGCCCTG



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GTGAAGACGGTCGCCCTGGACCTCCTGGTCTCAGGGAGCTCGTGGGCAGCCTGGCGTCATGGGTTTCCC
TGGCCCCAAAGGTGCCAACGGCGAGCCTGGCAAAGCTGGTGAAGAGGCTGGCTGGCGCTCCTGGTCTG
AGAGGTCTTCTGGAAAAGACGGTGAGACGGGAGCCGAGGACCCCGGCCCAAGTGGACCTGTGGTG
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TGAAGGTGAAAGCAAGGTGACCAGGGTATTCTGGTGAAGCTGGAGCTCCTGGCCTTGTTGGTCTCGG
GGCGAGCGAGGTTTCCAGGTGAACGTGGCTCTCTGGTGTCTCAGGGCCTCAGGGTCCCCGAGGCTCC
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GAAAGGAGAACCTGGAGATGATGGTCCCTCTGGTCTTGATGGTCTCCAGGTCCCAGGGGCTGGTGGT
CAAAGGGGCATTGTTGGTCTGCCTGGTCAAGCTGGTGAAGAGAGGATTCCCCGGCCTTCCCGGCCATCGG
GTGAGCCCGGCAAGCAGGGTGCACCTGGCGCGTCTGGAGACAGAGGTCCTCTGGTCTGTGGGGCTCC
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CCCCAGGCTCTCCTGGTCTGCTGGCCAACTGGCAAACAAGGAGACAGAGGAGAGGCTGGTGCACAAGG
TCCTATGGGTCCCTCAGGACCTGCTGGAGCCCGTGGGATTGCAGGCCCTCAAGGCCCGAGGTGACAAA
GGAGAATCTGGAGAGCAGGGCGAGAGGGGACTGAAGGGACACCGAGGTTTCACTGACTGCAGGGTCTGC
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CTCAAGTCACTGAACAACCAGATTGAGAGCATCCGCAGCCCCGACGGCTCCCGAAGAACCCTGCTCGCA
TTTGCCAAGACCTGAAACTCTGCCACCCGAGTGAAGAGCGGAGACTACTGGATTGATCCCAACCAGGG
CTGCACCTTGAGCGCCATGAAAGTTTTCTGCAACATGGAGACCGCGAGACTTGGCTTACCCCAACCCA
GCGACTGTCCCTCGAAAAACTGGTGGAGCAGCAAGAGCAAGGAAAAGAAACACATCTGGTTTGGAGAGA
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GACTTTCTCCGTCTACTGTCCACTGAGGGCTCCAGAACATCACCTACCACTGTAAGAACAGCATCGCC
TACCTGGACGAAGCGGCTGGCAACCTCAAGAAGGCCTTGCTCATCCAGGGCTCCAATGATGTAGAGATGA
GGGCCGAGGGCAACAGCAGGTTACATACTGCCCTGAAGGATGGTGCACGAAACACTGGTAAAGTG
GGGCAAGACCGTCATCGAGTACCGATCACAGAAGACCTCCCGCCTCCCATTATTGACATCGCACCCATG
GACATTGGAGGGGCTGAACAGGAATTTGGTGTGGACATAGGGCCTGTCTGCTTCTTGTAA

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**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

Sgfl-MluI

**ACCN:**

NM\_001113515

**Insert Size:**

4260 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).

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001113515.2</u> , <u>NP_001106987.2</u>
<b>RefSeq Size:</b>	4944 bp
<b>RefSeq ORF:</b>	4260 bp
<b>Locus ID:</b>	12824
<b>UniProt ID:</b>	<u>P28481</u>
<b>Cytogenetics:</b>	15 53.97 cM
<b>Gene Summary:</b>	<p>This gene encodes the alpha-1 subunit of the fibril-forming type II collagen, the major component of cartilage and the vitreous humor of the eye. The encoded preproprotein forms homotrimeric, triple helical procollagen that undergoes proteolytic processing during fibрил formation. Mice harboring certain mutations in this gene exhibit severe chondrodysplasia characterized by short limbs and trunch, craniofacial deformities and cleft palate. A complete lack of the encoded protein in mice results in postnatal lethality. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar proteolytic processing. [provided by RefSeq, Dec 2015]</p> <p>Transcript Variant: This variant (2) lacks an alternate in-frame exon, compared to variant 1, resulting in a shorter protein (isoform 2), compared to isoform 1. This isoform (2) may undergo proteolytic processing similar to isoform 1.</p>