

Product datasheet for MC224550

Col2a1 (NM_031163) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Col2a1 (NM_031163) 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:	>MC224550 representing NM_031163 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGATCCGCCTCGGGCTCCCCAGTCGCTGGTGTGCTGACGCTGCTCATCGCCGGTCTACGGTGTC
AGGGCCAGGATGCCAGGAGGCTGGCAGCTGTCTGCAGAAATGGGCAGAGGTATAAAGATAAGGATGTATG
GAAGCCCTCATCTTGCCGCATCTGTGTGTGACTGGAATGTCTCTGCGATGACATTATCTGTGAA
GACCCAGACTGCCTCAACCCGAGATCCCTTCGGAGAGTGTGTCCATCTGCCAGCTGACCTCGCCA
CTGCCAGTGAAAATTAGGGCCAAAGGGGCAGAAAGGAGAACCTGGAGATATCAGAGATATCATAGGACC
CAGAGGACCTCCTGGCCCTCAGGGACCTGCAGGTGAACAAGGACCCAGAGGTGATCGTGGTGACAAGGGA
GAAAAGGGTGGCCTGGACCCCGTGGCAGAGATGGAGAACCTGGTACCCCTGGAAATCCTGGCCCGCTG
GCCCTCCAGGTCCCCTGGTCCCCTGGCCTTAGTGCAGGAACTTCGCGGCTCAGATGGCTGGAGGGTA
TGACGAGAAGGCTGGTGGTGCCAGATGGGAGTCATGCAAGGGCCATGGGCCCATGGGACCCCGTGA
CCCCAGGCCCTGCCGTGCCCGGCCCTCAAGGATTTCAAGGCAATCCTGGTGAACCTGGCGAGCCTG
GTGTCTCTGGTCCCAGGGTCCCAGGTCCTCCTGGCCCTGTGAAAACCTGGTGACGACGGTGAAG
TGGGAAGCCCGAAAGTCTGGGGAAAGAGGCCTCCCTGGCCCTCAGGGTGTCTGGGATCCAGGAACC
CCGGGTCTCCCCGTGTCAAGGGTCACAGAGGTTACCCAGGCCTCGACGGTGTAAAGGGGAAGCTGGT
CTCCGGGTGTGAAGGGTGAAGTGGTCCCTGGTGAACGGATCCCGGGCCCAATGGTCCCGTGG
CCTGCCTGGTGAAGAGGACGACTGGCCCTGCTGGTGTCTGGTGTCTGGGTAACGATGGCCAGCCA
GGCCCCGTGGACCTCCGGTCTGTGGTCCCAGGTTGCTGGCTCCCTGGTGTCTCTGGTGTGCA
AGGGCGAAGCTGGTCCCCTGGTGTCTCGCGTCTGAAGTGTCTCAAGTGTCTCGTGGCAGCCTGGCAA
TCCTGGTCCCCTGGCCTGCAGGTGCTTCTGGTAACCCAGGACTGATGGTATTCTGGAGCCAAAGGA
TCCGCTGGTGTCTCTGGAATTGCTGGTCCCCTGGCTCCCTGGGCCCTGGCCCTCCCGTCTCAAG
GTGCAACTGGTCCCCTGGCCCAAGGTGAGGGGTGAACCTGGCATTGCTGGCTTTAAAGGTGATCA
AGGCCCAAGGGAGAGACTGGACCTGCTGGGCCCAAGGAGCCCTGGCCCGCTGGTGAAGAAGGCAAA
CGAGGTGCTCGAGGAGAGCCGGTGGTGTGGACCAATCGGACCCCTGGAGAGAGAGGTGCTCTGGCA



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ACCGTGGATTCCCAGGTCAAGATGGTCTGGCAGGTCCCAAGGGTGCCCTGGAGAGCGAGGGCCAGTGG
 CTTGACTGGTCCCAAGGGAGCCAACGGTGACCCGGGTCGTCTGGAGAACCTGGTCTTCTGGAGCCAGG
 GGTCTTACCGGTCGCCCTGGTGACGCTGGTCTCAAGGCAAAGTTGGTCTTCTGGAGCCCTGGTGAAG
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 CAAAGGTGCCAACGGCGAGCCTGGCAAAGCTGGTGAAGGGTCTGGCTGGCGCTCCTGGTCTGAGAGGT
 CTTCTGGAAAAGACGGTGAGACGGGAGCCGACGACCCCGGCCCCAGTGGACCTGCTGGTGAACGAG
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 CTCCTGGTACTGATGGTCCCAAAGGTGCAGCTGGCCAGATGGCCCCCTGGGGCTCAGGGGCTCCAGG
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 GGCGAGAAAGGCCAGAGGGAGCTCCTGGGAAGGATGGCGGCCGAGGTCTGACTGGGCCCATCGGACCCC
 CAGGCCACGAGGGGCCAACGGCGAGAAGGGAGAAGTCCGACCTCCTGGCCCGTCAAGGAGTACCGGAGC
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 AGGTGCCCAAGGTCCCGGGAGCCACCGGATTCCCTGGAGCTGCTGGCCGAGTTGGACCCCAAGGTGCT
 AATGGCAATCCTGGACCCGCCGCTCCCGTGGTCTGCTGGAAGAGTGGTCCCAAAGGTGTTCCAGGAG
 ACAGTGGCCCCCTGGCAGAGCTGGTGACCCCGGTCTTCAAGGTCTGCAGGAGCTCCTGGCGAGAAAGG
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 CCGGAAGCAGGGTGCACCTGGCGCTGGAGACAGAGGTCTCCTGGTCTGTGGGGCTCCTGGCCT
 GACAGGGCCTGCAGGTGAACCTGGACGAGAGGGCAGCCCTGGTGGTGGTGGACCCCTGGAAGAGATGGT
 GCAGTGGAGTCAAGGGAGATCGTGGTGGAGTGGAGCACTGGGTGCCCTGGAGCTCCTGGGCCCCAG
 GCTCTCCTGGTCTGCTGGCCAACTGGCAAACAAGGAGACAGAGGAGAGGCTGGTGCACAAGTCTAT
 GGGTCCCTCAGGACCTGCTGGAGCCGTTGGATTGCAGGCCCTCAAGGCCCCGAGGTGACAAAGGAGAA
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 CTCCGGTCTTCTGGAGATCAGGGTCTTCTGGCCCTGCTGGTCTTCTGGCCCTAGAGGTCCACCTGG
 CCCTGTTGGTCCCTCTGGCAAAGATGGCTAATGGAATCCCTGGCCCCATCGGGCTCCAGGTCCCGGT
 GGACGCTCAGGAGAAACAGGCCCTGTTGGTCCCGTGAAGTCCCGTCTCCTGGCCCTCCAGGTCCCTC
 CTGGTCTGGCATCGACATGTCAGCCTTCTGGCTTAGGGCAGAGAGAGAAGGGCCCCGACCCCATGCA
 GTACATGGCGGCCGACGAGGCAGACAGTACCTTGAGACAGCACGAGTGGAGGTGGACGCTACACTCAAG
 TCACTGAACAACCAGATTGAGAGCATCCGACGCCCGACGGCTCCCGCAAGAACCCTGCTCGCACTTGCC
 AAGACCTGAAACTCTGCCACCCGAGTGGAAAGAGCGGAGACTACTGGATTGATCCCAACCAGGGTGCAC
 CTTGGACGCCATGAAAGTTTTCTGCAACATGGAGACCGGGCAGACTTGGCTTACCCCAACCAGCGACT
 GTCCCTCGGAAAACTGGTGGAGCAGCAAGAGCAAGGAAAAGAAACACATCTGGTTTGGAGAGACCATGA
 ACGGTGGCTTCCACTTCACTATGGCGATGGCAACCTGGCTCCCAACACCGCTAACGTCCAGATGACTTT
 CCTCCGTACTGTCCACTGAGGGCTCCAGAACATCACCTACCCTGTAAGAACAGCATCGCCTACCTG
 GACGAAGCGGCTGGCAACCTCAAGAAGGCCTTGCTCATCCAGGGCTCCAATGATGTAGAGATGAGGGCCG
 AGGGCAACAGCAGGTTACATACTGCCCTGAAGGATGGCTGCACGAAACACACTGGTAAGTGGGGCAA
 GACCGTACAGATACGATACAGAAAGACCTCCGCCTTCCATTATTGACATCGACCCATGGACATT
 GGAGGGGCTGAACAGGAATTTGGTGTGGACATAGGGCCTGTCTGCTTCTGTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
 ACCN: NM_031163
 Insert Size: 4464 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:	NM_031163.3 , NP_112440.2
RefSeq Size:	5149 bp
RefSeq ORF:	4464 bp
Locus ID:	12824
UniProt ID:	P28481
Cytogenetics:	15 53.97 cM
Gene Summary:	<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 trunk, 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 (1) represents the longer transcript and encodes the longer isoform (1).</p>