

# Recombinant Mouse Col3a1 protein, His-tagged

**Cat. No.** COL3A1-09M    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Recombinant Mouse Col3a1(Gln155-Gly1219) fused with His tag at C-terminal was expressed in HEK293.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | 155-1219 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>      | <p>Collagen alpha-1(III) chainCol3a1 is a secreted protein and belongs to the fibrillar collagen family.It contains 1 fibrillar collagen NC1 domain and 1 VWFC domain.</p> <p>Collagen alpha-1(III) chain is a fibrillar collagen that is found in extensible connective tissues such as skin, lung, and the vascular system, frequently in association with type I collagen. The COL3A1 gene produces the components of type III collagen, called pro-alpha1(III) chains. Three copies of this chain combine to make a molecule of type III procollagen. These triple-stranded, rope-like procollagen molecules must be processed by enzymes outside the cell to remove extra protein segments from their ends. Once these molecules are processed, the collagen molecules arrange themselves into long, thin fibrils. Within these fibrils, the individual collagen molecules are cross-linked to one another. These cross-links result in the formation of very strong mature type III collagen fibrils, which are found in the spaces around cells.</p> |
| <b>Form</b>             | Supplied as a 0.2 µm filtered solution of 20mM HAc-NaAc,150mM NaCl, pH4.5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>AA Sequence</b>      | QFDSYDVKSGVGGMGGYPGPAGPPGPPGPPGSSGHPGSPGSPGYQGPPGEPGQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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AGPAGPPGPPGA LGPAGPAGKDGESGRPGRPGERGLPGPPGIKGPAGMPGFPG  
 MKGHRGFDGRNGEKGETGAPGLKG ENGLPGDNGAPGPMGPRGAPGERGRPLP  
 GAAGARGNDGARGSDGQPGPPGPPGTAGFPGSPGAK GEVGPAGSPGSNGSPG  
 QRGEPPGQGHAGAQQPPGPPGNNNGSPGGKGEMGPAGIPGAPGLIGARGP PGPA  
 GTNGIPGTRGPSGEPGKNGAKGEPGARGERGEAGSPGIPGPKGEDGKDGSPGEP  
 GANGLPG AAGERGPSGFRGPAGPNGIPGEKGPPGERGGPGPAGPRGVAGEPGR  
 DGTPGGPGIRGMPGSPGGP GNDGKPGPPGSQGESGRPGPPGPSGPRGQPGVM  
 GFPGPKGNDGAPGKNGERGGPGGPGPLPGPAGK NGETGPQGGPPGPTGPAGDKG  
 DSGPPGPQGLQGIPGTGGPPGENGKPGEPGPKGEVGAPGAPGGKG DSGAPGER  
 GPPGTAGIPGARGGAGPPGPEGGKGPAGPPGPPGASGSPGLQGMPGERGGPGS  
 PGPK GEKGEPGGAGADGVPGKDGPRGPAGPIGPPGPAGQPGDKGEGGSPGLPGI  
 AGPRGGPGERGEHGP PGPAFFPGAPGQNGEPGAKGERGAPGEKGEGGPPGPA  
 GPTGSSGPAGPPGPQGVKGERGSPGGPG TAGFPGGRGLPGPPGNNGNPGPPGP  
 SGAPGKDGPPGPAGNSGSPGNPGIAGPKGDAGQPGEKGPP GAQGPPGSPGPLGI  
 AGLTGARGLAGPPGMPGPRGSPGPQGIKGESGKPGASGHNGERGPPGPQGL PG  
 QPGTAGEPGRDGNPGSDGQPGRDGSPGGKGDRGENGSPGAPGAPGHPGPPGP  
 VGPSGKSGDRG ETGPAGPSGAPGPAGARGAPGPQGPRGDKGETGERGSNGIKG  
 HRGFPGNPGPPGSPGAAGHQGAI GSPGPAGPRGPVGPHPGPKDGTSGHPGPIG  
 PPGPRGNRGERGSEGSPGHPGQPGPPGPPGAPGP CCGGGAAAIAGVGGEKSGG  
 FSPYYGVDHHHHHH

|                  |                                                                                                   |
|------------------|---------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b> | Less than 0.1 ng/g (1 IEU/g) as determined by LAL test.                                           |
| <b>Purity</b>    | Greater than 95% as determined by reducing SDS-PAGE.                                              |
| <b>Storage</b>   | Store at < -20 centigrade, stable for 6 months after receipt. Please minimize freeze-thaw cycles. |

## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                                                                                              |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | Col3a1 collagen, type III, alpha 1 [ Mus musculus ]                                                                                                                                                                                                                                                                          |
| <b>Official Symbol</b>     | Col3a1                                                                                                                                                                                                                                                                                                                       |
| <b>Synonyms</b>            | COL3A1; collagen, type III, alpha 1; collagen alpha-1(III) chain; procollagen, type III, alpha 1; minisatellite 10w detected by probe MMS10; Ms10w; Col3a-1; MMS10-W; AW550625; mKIAA4231; KIAA4231;                                                                                                                         |
| <b>Gene ID</b>             | 12825                                                                                                                                                                                                                                                                                                                        |
| <b>mRNA Refseq</b>         | NM_009930                                                                                                                                                                                                                                                                                                                    |
| <b>Protein Refseq</b>      | NP_034060                                                                                                                                                                                                                                                                                                                    |
| <b>MIM</b>                 |                                                                                                                                                                                                                                                                                                                              |
| <b>UniProt ID</b>          | P08121                                                                                                                                                                                                                                                                                                                       |
| <b>Chromosome Location</b> | 1 C1.1; 1 23.67 cM                                                                                                                                                                                                                                                                                                           |
| <b>Pathway</b>             | Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Axon guidance, organism-specific biosystem; Developmental Biology, organism-specific biosystem; ECM-receptor interaction, organism-specific biosystem; ECM-receptor interaction, conserved biosystem; Focal Adhesion, organism-specific biosystem; |
| <b>Function</b>            | SMAD binding; extracellular matrix structural constituent; integrin binding; platelet-derived growth factor binding;                                                                                                                                                                                                         |