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Product datasheet for SC107929

Collagen IX (COL9A1) (NM_078485) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen IX (COL9A1) (NM_078485) Human Untagged Clone
Tag:	Tag Free
Symbol:	Collagen IX
Synonyms:	DJ149L1.1.2; EDM6; MED; STL4
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC107929 sequence for NM_078485 edited (data generated by NextGen Sequencing)

ATGGCCTGGACTGCGCGGGACCGCGGGGCCCTGGGGCTGCTGCTGTTGGGGCTCTGCTTG
TGCGCGGCTCAAAGAGGTCCCCCGGGTGAGCAGGGTCCTCCCGGGCCTCCGGGCCCCCCT
GGAGTTCCAGGCATCGATGGCATCGACGGTGACCGAGGTCCTAAGGGCCCCCCGGGCCCC
CCGGGTCCTGCAGGTGAACCGGGAAAGCCAGGAGCTCCAGGCAAGCCTGGCACACCTGGC
GCTGATGGATTAACAGGACCTGATGGATCCCCTGGCTCCATTGGGTCAAAGGGACAAAAA
GGAGAACCTGGTGTGCCTGGATCGCGTGGATTTCCAGGCCGTGGTATTCCTGGACCCCCT
GGTCCTCCTGGGACAGCAGGACTCCCTGGAGAGCTTGGCCGTGTAGGACCTGTTGGTGAC
CCTGGGAGAAGAGGACCACCTGGCCCCCCTGGCCCCCCAGGACCCAGAGGAACAATTGGC
TTTCATGATGGAGATCCATTGTGTCCCAATGCCTGTCCACCAGGTCGCTCAGGATATCCA
GGCCTACCAGGCATGAGGGGTCATAAAGGGGCTAAAGGAGAAATTGGTGAACCAGGAAGA
CAAGGACACAAGGGTGAAGAAGGTGACCAGGGAGAACTCGGAGAAGTTGGAGCTCAAGGA
CCTCCAGGAGCCCAGGGTTTGCGAGGCATCACCGGCATAGTTGGGGACAAAGGGGAAAAA
GGTGCTCGGGGCTTAGATGGTGAACCTGGGCCTCAGGGTCTTCCTGGTGCACCTGGTGAT
CAAGGACAGCGAGGACCTCCAGGAGAAGCAGGTCCCAAAGGAGATAGAGGGGCTGAAGGT
GCTAGAGGAATTCCTGGTCTCCCTGGGCCCAAAGGAGACACGGGTTTGCCAGGTGTGGAT
GGCCGTGATGGGATCCCTGGAATGCCTGGAACAAAGGGTGAACCAGGAAAACCTGGGCCT
CCTGGTGATGCAGGATTGCAGGGGTTACCAGGTGTACCTGGAATTCCTGGTGCAAAGGGT
GTTGCTGGTGAAAAGGGTAGCACAGGTGCTCCAGGGAAGCCTGGTCAGATGGGAAATTCA
GGCAAACCGGGCCAACAGGGGCCTCCAGGAGAGGTGGGACCCCGAGGACCCCGGGGGCTT
CCTGGCAGTAGAGGAGAATTAGGACCAGTGGGATCCCCAGGCCTACCAGGTAAACTGGGT
TCTCTGGGTAGCCCTGGCCTCCCTGGCTTGCCTGGGCCCCCTGGACTTCCTGGAATGAAA
GGTGACAGGGGTGTAGTCGGTGAACCGGGTCCAAAGGGTGAACAGGGTGCCTCTGGTGAA
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TCTGCAGGTAATCCTGGGGAACCTGGCTTGAGAGGGCCTGAGGGAAGTCGGGGGCTTCCT
GGAGTGGAAGGACCAAGAGGACCACCTGGACCCCGGGGTGTGCAGGGAGAACAGGGTGCC
ACCGGCCTGCCTGGTGTCCAGGGCCCTCCGGGTAGAGCACCGACAGATCAGCACATTAAG
CAGGTTTGCATGAGAGTCATACAAGAACATTTTGCTGAGATGGCTGCCAGTCTTAAGCGT
CCAGACTCAGGTGCCACTGGGCTTCCTGGAAGGCCTGGCCCTCCTGGTCCCCCCGGCCCT
CCTGGAGAGAATGGTTTCCCAGGCCAGATGGGAATTCGTGGCCTTCCGGGCATTAAGGGG
CCCCCTGGTGCTCTTGGTTTGAGGGGACCTAAAGGTGACTTGGGAGAAAAGGGGGAGCGT
GGCCCTCCAGGAAGAGGTCCCAACGGTTTGCCTGGAGCTATAGGTCTCCCAGGTGACCCA
GGCCCTGCCAGCTATGGCAGAAATGGCCGAGACGGTGAGCGAGGCCCCCCAGGGGTGGCA
GGAATTCCTGGAGTGCCTGGACCCCCGGGACCTCCTGGGCTTCCCGGTTTCTGTGAGCCA
GCCTCCTGCACCATGCAGGCTGGTCAGCGAGCATTTAACAAAGGGCCTGACCCTTGA

Clone variation with respect to NM_078485.3
1133 a=>g

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_078485 unedited
TATACGACTCACTATAGGGCGGCCGCGATTCGGCACGAGGGCCACCTATGCTAGTGGCGG
GTCTGGAAGCCTAGAGGGGAACCAGGCTGCAGAGCCGGGCCAAGGGATTAGCGGCGGGCG
GCGGGCATGGCCTGGACTGCGCGGGACCGCGGGGCCCTGGGGCTGCTGCTGTTGGGGCTC
TGCTTGTGCGCGGCTCAAAGAGGTCCCCCGGGTGAGCAGGGTCCTCCCGGGCCTCCGGGC
CCCCCTGGAGTTCCAGGCATCGATGGCATCGACGGTGACCGAGGTCCTAAGCCCCCCCCC
GGGCCCCCCGGGTCCTGCAGGTGAACCGGGAAAGCCAGGAGCTCCAGGCAAGCCTGGCAC
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ACAAAAAGGAGAACCTGGTGTGCCTGGATCGCGTGGATTTCCAGGCCGTGGTATTCCTGG
ACCCCCTGGTCCTCCTGGGACAGCAGGACTCCCTGGAGAGCTTGGCCGTGTAGGACCTGG
TTGGTGACCCTGGGAGAAGAGGACCACCTGGNCCCCCCTGGCCCNCCAGGACCCAGAGGA
ACAATTGGCTTTCATGATGGGAGATCCANTTGTGTCCCAATGCCTGTCCACCANGTCGCT
CAGGATATCCAGGCCTACCNGCATGGGGGGGTCATAAGGGGCTAAAGGAGAAATTGGGTG
ACCANGAAAGACAGGACACAAGGTGGAAGAAAGTGACCAGGGAGACTCCGAGAAGTTGGA
GCTCAAGGACCTCCAGAGCCCAGGGTTTGGCGAGCATCACGGCNATATTGGGGACAAGGG
GAAAAAGGTGCTCGGGCTTTAAAGGGGGAACCTGGGCCTTAGGTCTTNCTGGGGCCCTGG
GGATCAAGGACGCGAGGACCTCCGAAAACCAGGCCCAAGGAAATAAAGGGCTTGAGGGCT
TAAGAA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_078485 unedited
GGTCCGACTATGNACCGCGGNCCGCATNCTANGATCGNGTTTTTTTTTTTTTTTTTTTTA
GTTAAGTAATGTTTAATGTATCTAAATAAGCTCAGTAACTTCTTTTCATTGAACATGATT
ATTTATAAGAAAACATGCAAGAGATTAAGAAACCATATTTATTTCTTCTTTGGTACAACC
AGAGATGTTACCTCAAACCTTTAAAATAAATAATCTCATCAATAAAATTTATGAATGCCA
GAGTATTAAAATTATTTCTTTGCTTTCACATAGAAGCGCTCAAAATATTAACAGGTTTGG
GGTAAAGTACATACAGTTCAACAAAAGTTCAAGGTGAAGAAGGAAACCAATACATGACGT
AAAGAAATCATTTCGGGAGATGTAGCCCTTTCTTATCACTCCAGAGACAGCACATCGATG
AGATTTTAAGCACCAATTCCATTGAATGTAGTGGGGTTTCTTCATAACTAGTCTAGTAAT
CCTCTATATAACTGAAACAATAATCTGAGAACAACTTCTAAATGAAAATAACTACTGCAA
CTGAGGTAAACCAAACAGTTGTTTTTGTTTATTGGCACAGTGGCCCACGATAAGACACAT
AGGGTTAGCACACTAAAGCTCAAGATCCTGGGAACAGGAGTATAAAATTGTTCAAGGGAG
GTGGTTGGTTTTCTTTTTTTTTTTTTAACTGATGACTCTGCTGTCTTCCCTCCCAGGGAA
AGGAAAAAAAACTTACTGAATTAGCCCCGTTCTCTATATGTGATTGGCCAGTAGGACTTC
TGTAATCCTACTGGAGGGAAAACATTGTAAGCAGGCCGAAGGGAAACATCTTTGCCCCCA
CTTTGGAAGGGGGTTTTTTAACCAAGCTTCTTTACCACAGGGTGGTTTATGGCCAACGGC
TTGCGGCAGTAAACCTTTT

Restriction Sites: NotI-NotI

ACCN: NM_078485

Insert Size: 2600 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:	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_078485.2, NP_511040.2
RefSeq Size:	2985 bp
RefSeq ORF:	2037 bp
Locus ID:	1297
UniProt ID:	P20849
Cytogenetics:	6q13
Domains:	Collagen
Protein Families:	Druggable Genome
Gene Summary:	This gene encodes one of the three alpha chains of type IX collagen, which is a minor (5-20%) collagen component of hyaline cartilage. Type IX collagen is usually found in tissues containing type II collagen, a fibrillar collagen. Studies in knockout mice have shown that synthesis of the alpha 1 chain is essential for assembly of type IX collagen molecules, a heterotrimeric molecule, and that lack of type IX collagen is associated with early onset osteoarthritis. Mutations in this gene are associated with osteoarthritis in humans, with multiple epiphyseal dysplasia, 6, a form of chondrodysplasia, and with Stickler syndrome, a disease characterized by ophthalmic, orofacial, articular, and auditory defects. Two transcript variants that encode different isoforms have been identified for this gene. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (2) differs in the 5' UTR and lacks several exons in the 5' coding region, compared to variant 1. These differences cause translation initiation at a unique AUG and an isoform (2, also known as the short form) with a shorter N-terminus, compared to isoform 1.