

Product datasheet for **RC218130**

Collagen IX (COL9A1) (NM_001851) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen IX (COL9A1) (NM_001851) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Collagen IX
Synonyms:	DJ149L1.1.2; EDM6; MED; STL4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC218130 representing NM_001851
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGACCTGCTGGAAAATTCAGTTTTCTTCTTTGTGTGCAGTTTCCTGGAACCTGGGCATCTGCAG
 CTGTCAAGCGTCGCCCCAGATTCCTGTCAATCCAATTCATGGTGGAAATGAACTCTGTCCAAGAT
 CAGGATTGGCCAAGATGACTTACCAGGGTTTGATCTGATCTCTCAGTTCAGGTAGATAAAGCAGCATCT
 AGAAGAGCTATCCAGAGAGTAGTGGGATCAGCTACATTGCAGGTGGCTTACAAGTTGGGAAATAATGTAG
 ACTTCAGGATTCCAAGTGGAAATTTATATCCCAGTGGACTGCCTGAAGAATACTCCTTTGACGACGTT
 TCGAATGACTGGAAGCACTCTCAAAAAGAACTGGAACATTTGGCAGATTCAGGATTCCTCTGGGAAGGAG
 CAAGTTGGCATAAAGATTAATGGCCAAACACAATCTGTTGATTTTCATAACAAGGACTGGATGGAAGTC
 TCCAAACAGCAGCCTTTTCGAATTTGCCTCCTGTTGATTCCCAGTGGCATAAGATCATGATTGGCGT
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 GGATATCCAGGCCTACCAGGCATGAGGGGTCAAAAGGGGCTAAAGGAGAAATTGGTGAACCAGGAAGAC
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 GTCCCAAAGGAGATAGAGGGCTGAAGGTGCTAGAGGAATTCCTGGTCTCCCTGGGCCAAAGGAGACAC
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 GAGTGAAGGACCAAGAGGACCCTGGACCCCGGGTGTGCAGGAGAACAGGGTGCCACCGGCCTGCC
 TGGTGTCCAGGGCCCTCCGGGTAGAGCACCGACAGATCAGCACATTAAGCAGGTTTGCATGAGATCATA
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 GCCCTGCCAGCTATGGCAGAAATGGCCGAGACGGTGAAGGAGGCCCCCGGGGTGGCAGGAATTCCTGG
 AGTGCCTGGACCCCGGGACCTCCTGGGTTCCCGGTTTCTGTGAGCCAGCCTCCTGCACCATGCAGGCT
 GGTGAGGAGCATTTAACAAAGGCCTGACCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218130 representing NM_001851
 Red=Cloning site Green=Tags(s)

MKTCWKIPVFFFVCSFLEPWASAAVKRRRPRFPVNSNSNGGNELCPKIRIGQDDLPGFDLISQFVQDKAAS
 RRAIQRVVGSATLQVAYKLGNNVDFRIPTRNL YPSGLPEEYSFLT TFRMTGSTLKKNNWIWQIQDSSGKE
 QVGIKINGQTQSVVFSYKGLDGSLQTAAF SNLSSLFDSQWHKIMIGVERSSATLFVDCNRIESLPKPRG
 PIDIDGFAVLGKLDADNPQVSVPFELQWMLIHCDPLRPRRETCHHELPARITPSQTTDERGPPGEQGGPPGP
 GPPGVPGIDGIDGRGPKGPPGPPGAPGKPGAPGKPGTADGLTGPDGSPGSGISGKQKGEPPGVP
 SRGFPPGRGIPGPPGPGTAGLPGELGRVGPVGDGRRGPPGPPGPPGPRGTIGFHDGDPLCPNACPPGRS
 GYPGLPGRGHKGAKGEIGEPGRQGHKGEEGDQGEVGAQGGPPGAQGLRGITGIVGDKGEKGARGLDG
 EPGPQGLPGAPGDQGRGPPGEAGPKGDRGAEGARGIPGLPGPKGDTGLPGVDGRDIPGMPGKGEPPGK
 PGPPGDAGLQGLPGVPGIPGAKGVAGEKGSTGAPGKPGQMGNSGKPGQQGPPGEVGRPGQGLPGRGEL
 GPVGSPLPGKLGSLGSPGLPGLPGPPGLPMKGDGRVVEGPGKGEQASGEEGEAGERGELGDIPLG
 PKGSAGNPGEPGLRGPEGSRLPGVEGPRGPPGPRGVQGEQATGLPGVQGGPPRAPTDQHIKQVCMRVI
 QEHFAEMAASLRPDSGATGLPGRGPPGPPGPPGENGFPGQMGIRGLPGIKGPPGALGLRGPKGDLEK
 GERGPPGRGNLPGAIGLPGDGPASVGRNRDGERGPPGVAGIPGVPGPPGPPGLPGFCEPASCTMQA
 GQRAFNGPDP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8015_g04.zip

Restriction Sites: Sgfi-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



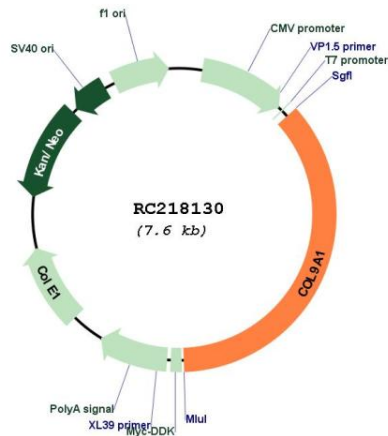
* The last codon before the Stop codon of the ORF

ACCN: NM_001851

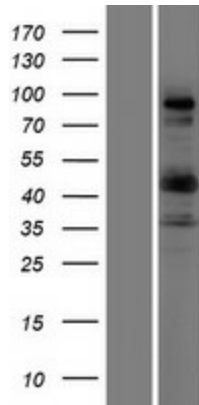
ORF Size: 2763 bp

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:	<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_001851.6
RefSeq Size:	3704 bp
RefSeq ORF:	2766 bp
Locus ID:	1297
UniProt ID:	P20849
Cytogenetics:	6q13
Protein Families:	Druggable Genome
MW:	91.87 kDa
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]

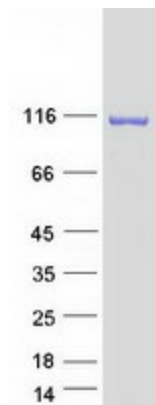
Product images:



Circular map for RC218130



Western blot validation of overexpression lysate (Cat# [LY419709]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218130 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified COL9A1 protein (Cat# [TP318130]). The protein was produced from HEK293T cells transfected with COL9A1 cDNA clone (Cat# RC218130) using MegaTran 2.0 (Cat# [TT210002]).