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Product datasheet for SC112997

Collagen I (COL1A1) (NM_000088) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen I (COL1A1) (NM_000088) Human Untagged Clone
Tag:	Tag Free
Symbol:	Collagen I
Synonyms:	CAFYD; EDSARTH1; EDSC; OI1; OI2; OI3; OI4
Mammalian Cell Selection:	None
Vector:	pCMV6-XL6
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

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>OriGene sequence for NM_000088 edited
AGACGGGAGTTTCTCCTCGGGGTCGGAGCAGGAGGCACGCGGAGTGTGAGGCCACGCATG
AGCGGACGCTAACCCCCTCCCCAGCCACAAAGAGTCTACATGTCTAGGGTCTAGACATGT
TCAGCTTTGTGGACCTCCGGCTCCTGCTCCTCTTAGCGGCCACCGCCCTCCTGACGCACG
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CAACCCGGAAACAGACAAGCAACCCAAACTGAACCCCCTCAAAAGCCAAAAAATGGGAGA
CAATTTCACATGGACTTTGGAAAATATTTTTTTCCTTTGCATTCATCTCTCAAACTTAGT

TTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGCATTCAACCTTACCAAAA
AAAAAAAAAAAA

Restriction Sites:	Please inquire
ACCN:	NM_000088
Insert Size:	5000 bp
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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:	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_000088.2.
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_000088.2, NP_000079.1
RefSeq Size:	5921 bp
RefSeq ORF:	4395 bp
Locus ID:	1277
UniProt ID:	P02452
Cytogenetics:	17q21.33
Domains:	COLFI, VWC, Collagen
Protein Families:	Druggable Genome
Protein Pathways:	ECM-receptor interaction, Focal adhesion

Gene Summary: This gene encodes the pro-alpha1 chains of type I collagen whose triple helix comprises two alpha1 chains and one alpha2 chain. Type I is a fibril-forming collagen found in most connective tissues and is abundant in bone, cornea, dermis and tendon. Mutations in this gene are associated with osteogenesis imperfecta types I-IV, Ehlers-Danlos syndrome type VIIA, Ehlers-Danlos syndrome Classical type, Caffey Disease and idiopathic osteoporosis. Reciprocal translocations between chromosomes 17 and 22, where this gene and the gene for platelet-derived growth factor beta are located, are associated with a particular type of skin tumor called dermatofibrosarcoma protuberans, resulting from unregulated expression of the growth factor. Two transcripts, resulting from the use of alternate polyadenylation signals, have been identified for this gene. [provided by R. Dalgleish, Feb 2008]