

## Product datasheet for **SC300010**

### Collagen V (COL5A1) (NM\_000093) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen V (COL5A1) (NM_000093) Human Untagged Clone
Tag:	Tag Free
Symbol:	COL5A1
Synonyms:	EDSC; EDSCL1; FMDMF
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000093, the custom clone sequence may differ by one or more nucleotides

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 GAGATCGACACCCCAAGTGGAGCAGGTGCCATCGTGGACATCATGTTCAATGACTTC  
 GGTGAAGCGTCACAGAAATTTGGATTTGAAGTGGGGCCGGCTTGCTTCATGGGCTAG

- Restriction Sites:** Please inquire
- ACCN:** NM\_000093
- 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](mailto: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:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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\\_000093.2](#), [NP\\_000084.2](#)
- RefSeq Size:** 6496 bp
- RefSeq ORF:** 5517 bp
- Locus ID:** 1289

UniProt ID: [P20908](#)

Cytogenetics: 9q34.3

Protein Families: Druggable Genome

Protein Pathways: ECM-receptor interaction, Focal adhesion

**Gene Summary:** This gene encodes an alpha chain for one of the low abundance fibrillar collagens. Fibrillar collagen molecules are trimers that can be composed of one or more types of alpha chains. Type V collagen is found in tissues containing type I collagen and appears to regulate the assembly of heterotypic fibers composed of both type I and type V collagen. This gene product is closely related to type XI collagen and it is possible that the collagen chains of types V and XI constitute a single collagen type with tissue-specific chain combinations. The encoded procollagen protein occurs commonly as the heterotrimer pro-alpha1(V)-pro-alpha1(V)-pro-alpha2(V). Mutations in this gene are associated with Ehlers-Danlos syndrome, types I and II. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, May 2013]  
Transcript Variant: This variant (1) encodes isoform 1.