

## Product datasheet for **SC338110**

### Collagen V (COL5A1) (NM\_001278074) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen V (COL5A1) (NM_001278074) Human Untagged Clone
Tag:	Tag Free
Symbol:	COL5A1
Synonyms:	EDSC; EDSCL1; FMDMF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001278074, the custom clone sequence may differ by one or more nucleotides

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GACGGTTCTGGAGATCGACACCCCAAAGTGGAGCAGGTGCCCATCGTGGACATCATGTTCAATGACTTC
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<b>Restriction Sites:</b>	Sgfl-MluI
<b>ACCN:</b>	NM_001278074
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001278074.1</a></u> , <u><a href="#">NP_001265003.1</a></u>
<b>RefSeq Size:</b>	8455 bp
<b>RefSeq ORF:</b>	5517 bp
<b>Locus ID:</b>	1289
<b>Cytogenetics:</b>	9q34.3
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	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 (2) contains an alternate in-frame exon in the 3' coding region compared to variant 1. It encodes isoform 2 which is of the same length but contains an alternate segment, compared to isoform 1. This variant is based on experimental data in PMID 22149965 and is supported by partial transcripts and RNA-seq data.