

## Product datasheet for **SC305815**

### Collagen XI alpha 2 (COL11A2) (NM\_080681) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen XI alpha 2 (COL11A2) (NM_080681) Human Untagged Clone
Tag:	Tag Free
Symbol:	COL11A2
Synonyms:	DFNA13; DFNB53; FBCG2; HKE5; OSMEDA; OSMEDB; PARP; STL3
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_080681, the custom clone sequence may differ by one or more nucleotides

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ATGGAGCGGTGCAGCCGCTGCCATCGCCTCCTCCTCCTACCTCTGGTCTGGGGCTG
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CAGCTGCCAGTGCTGGATGCCTCCTTCTCAGACCTGGGAGCCCCACCGAGGCGGGGAGGG  
GTGCTGCTGGGCCTGTCTGCTTCATGGGATAG

<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_080681
<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>OTI Annotation:</b>	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.
<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>	<a href="#">NM_080681.1</a> , <a href="#">NP_542412.1</a>
<b>RefSeq Size:</b>	6156 bp
<b>RefSeq ORF:</b>	4953 bp
<b>Locus ID:</b>	1302
<b>UniProt ID:</b>	<a href="#">P13942</a>
<b>Cytogenetics:</b>	6p21.32
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	ECM-receptor interaction, Focal adhesion

**Gene Summary:**

This gene encodes one of the two alpha chains of type XI collagen, a minor fibrillar collagen. It is located on chromosome 6 very close to but separate from the gene for retinoid X receptor beta. Type XI collagen is a heterotrimer but the third alpha chain is a post-translationally modified alpha 1 type II chain. Proteolytic processing of this type XI chain produces PARP, a proline/arginine-rich protein that is an amino terminal domain. Mutations in this gene are associated with type III Stickler syndrome, otospondylomegaepiphyseal dysplasia (OSMED syndrome), Weissenbacher-Zweymuller syndrome, autosomal dominant non-syndromic sensorineural type 13 deafness (DFNA13), and autosomal recessive non-syndromic sensorineural type 53 deafness (DFNB53). Alternative splicing results in multiple transcript variants. A related pseudogene is located nearby on chromosome 6. [provided by RefSeq, Jul 2009]

Transcript Variant: This variant (2) lacks two alternate in-frame exons, compared to variant 1, resulting in a shorter protein (isoform 2), compared to isoform 1. There are no publicly available human transcripts representing the full-length exon combination of this variant, but the region of variation is supported by experimental data in PMIDs 8663204 and 8838804, by homology data in mouse, and the full-length sequence is represented in accession U32169.1:AAC50213.1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The extent of this transcript is supported by transcript alignments.