

Product datasheet for **RG218868**

Collagen XI alpha 2 (COL11A2) (NM_080681) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Collagen XI alpha 2 (COL11A2) (NM_080681) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: COL11A2
Synonyms: DFNA13; DFNB53; FBCG2; HKE5; OSMEDA; OSMEDB; PARP; STL3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG218868 representing NM_080681
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCGGTGCAGCCGCTGCCATCGCCTCCTCCTCCTACCTCTGGTCTGGGGCTGAGCGCGGCC
CAGGCTGGGCAGGTGCACCCCTGTGGATGTGCTCCGGCCCTGAGGTTCCCTCCTCCTGATGGTGT
CCGGAGAGCGAAAGGCATCTGTCCAGCTGATGTGGCTACCGAGTGGCAGACCTGCCAGCTCAGTGCA
CCCCTCGCCAGCTTTTCCAGGAGGATTTCCAAAGATTTCTCTCTGCTGACTGTTGTCGGACCCGCC
CTGGTCTCCAAGCTCCCCTCCTGACTCTCTACAGTGGCAGGGTGTCCGACAGCTGGGCTGGAGCTGG
CCGACCTGTCCGTTCTGTATGAAGACCAGACTGGGCGGCTCAACCTCCCTCTCAGCCAGTCTCCGA
GGCCTCAGCCTAGCAGATGGCAAGTGGCACCGTGTGGCTGTGGCTGTGAAGGGCCAGTCTGTACCCCTCA
TTGTTGACTGCAAGAAGCGAGTCACCCGGCCTCTCCCCGAAGTCTCGTCCAGTATTGGACACCCATGG
AGTGATCATCTTTGGTGCCCGTATTCTGGATGAAGAAGTCTTTGAGGGTGTGTCAGGAGCTGGCCATT
GTCCCAGGGTCCAGGCAGCCTATGAATCATGTGAACAGAAGGAGCTGGAATGCGAGGGGGCCAGAGGG
AAAGACCCAAAACCAACAGCCTCACAGAGCCAGAGATCTCCACAGCAGCAACCATCAAGACTTCACAG
GCCAAAAATCAGGAACCCAGAGCCAGGACCCACCCAGGTGAAGAGGAAGAAATCCTGGAGTCGAGC
CTTTGCCACCCCTTGAGGAGGCTGCCATGGACCCGAGGGCTGAAGGGAGAGAAGGAGAGCCCTGCAG
TGTTGGAACCTGGTATGCTCGTGGAGGGGCCCTGGCCAGAAGGCCCTGCGGGATTGATTGGTCCCCC
TGGCATCCAGGGGAACCCAGGCCAGTTGGAGACCCTGGAGAGAGGGGCCCCCTGGCCGAGCAGGGCTC
CCTGGATCAGATGGGCTCCTGGTCTCCTGGCACATCTCTATGCTCCATTCCGGTTTGGCAGTGGT
GGGGTGACAAGGGCCCTGTGGTGGCGGCCAGGAGGCTCAGGCCAGGCGATCCTGCAGCAGGCGAGGCT
GGCGCTCCGTGGACCCCTGGCCCATGGGATACACAGGGCGCCCTGGACCCTTGGGCCAACCTGGGAGC
CCTGGCCTGAAAGGAGAGTCTGGAGACTTAGGACCTCAGGGCCAGAGGACCTCAGGGCCTCACAGGCC
CTCCTGGCAAGGCTGGGCAAGGGGCCGGCAGGTGCTGATGGAGCCGAGGGATGCCTGGAGATCTGG
AGTGAAGGGTACCGAGGTTTTGATGGACTCCCAGGGCTCCCTGGAGAGAAGGGCCATAGGGGTGACT



[View online »](#)

GGTGCCAGGGCCTTCCTGGTCCCCCTGGTGAGGATGGAGAGAGGGGAGATGACGGGGAGATTGGGCCTC
 GAGGGCTGCCTGGAGAGTCGGGACCTCGAGGTCTCCTTGGCCCCAAAGGCCACCTGGTATTCTGGACC
 CCCTGGCGTCCGAGGCATGGATGGTCCCCAGGGCCCCAAAGGGAGCTTGGGACCCAGGGAGAGCCAGGA
 CCTCTGGACAACAGGGCACCCCTGGGACCCAGGGTCTTCCCGGGCCCCAGGGTGCATCGGCCCTCATG
 GAGAGAAGGGTCTCAAGGGAAGCCAGGGCTCCCCGGCATGCCTGGCTCAGACGGACCCCGGGTACCC
 AGGGAAGGAAGTCCCCCTGGAACCAAGGAAACCAGGGTCCCTCTGGACCTCAGGGACCTTAGGATAC
 CCAGGACCTCGAGGGGTCAAGGGTGTGGACGGAATTCGGGGTCTGAAGGGTCTAAGGGTGAAGAAGGGT
 AGGATGGCTTTCCTGGGTTCAAAGGTGACATAGGCGTGAAGGTGACAGGGGCGAAGTTGGAGTCCCTGG
 TTCAGGGGAGAGGATGGTCTGAGGGGCCAAAGGGACGCACTGGACCGACTGGAGACCTGGGCCCCCA
 GGGCTCATGGGCGAGAAGGGCAAGCTGGGTGTTCTGGTCTGCCTGGCTATCCTGGACGTGAGGGACCA
 AGGGGTCCCTAGGATTTCTGGCTTTCCTGGTCCAGTGGAGAGAAGGGAGCCCGGGGCTGTGGGGAA
 GTCAGGGCTCGGGGAGAACGGGGCCCCACGGTCCACGGGGTCAAGGGGACCCGAGGTGCCACTGGG
 AAGTCTGGAGCTAAGGGAACATCTGGTGGTGTGGCCCCATGGGCCCTGGAGAGAGGGGCTCCCTG
 GACCTCAGGGTCCCAACGGGTTTCTGGACCGAAAGGACCCCGGGCCCCCTGGGAAGGATGGGCTGCC
 GGGACACCCAGGCCAAAGAGGAGAAGTGGGTTTCAAGGGAAGACCGGCCCCCTGGTCTCCAGGAGTG
 GTGGGACCTCAGGGAGCAGCAGGAGAAACCGGCCCTATGGGGGAGAGAGTCAACCAGGCCCCCGGGG
 CCCTGGAGAGCAGGGACTACCTGGGACAGCTGGAAAAGAAAGAAACAAAGGGTGACCTGGTCCCCCTGG
 GGCCCCAGGGAAGGATGGTCTGCTGGTCTGAGGGGATCCCAGGAGAGAGAGGCCCTCCAGGCACTGCT
 GGTGGACCTGGTTTGAAGGGGAATGAAGGTCCGTCTGGCCCCCTGGCCCTGCAGGCTCCCTGGGGAAC
 GAGGTGCAGCAGGATCAGGGGGACCCATTGGTCCGCCAGGGGCCAGGCCCGCAGGGTCCCCCTGGAGC
 AGCAGGAGAGAAAGGTGTCCAGGTGAGAAGGGCCCCATTGGCCGACTGGCCGAGATGGAGTGCAGGGT
 CCTGTGGGGTCTCCTGGTCTGCTGGGCTCCAGGTGTGGTGGAGAGGATGGAGACAAGGGTGAAGTGG
 GGGACCCGGACAGAAGGGCACCAAGGGAAACAAGGGTGAACATGGCCCTCTGGACCCCTGGACCCAT
 TGGTCTGTGGGGCAGCCTGGAGCAGCGGGAGCAGATGGGGAGCCCGGAGCTCGGGGACCCAGGGACAC
 TTTGGAGCCAAGGTGATGAAGGAACAAGAGGATTCATGGGCCCCAGGACCCATTGGCTACAGGGTT
 TGCCAGGCCCTCTGGGAGAAGGGAGAAACAGGAGATGTGGTCTATGGGACCACCTGGCCCCCAGG
 ACCTCGAGGTCCAGTGGACCAATGGCGCTGATGGCCACAAGGTCCCCAGGAGGTGTTGGGAACCTG
 GGTCCCCCTGGAGAGAAGGGGAACCAGGAGAGTCAAGGATCTCCAGGGATCCAGGGCAGCCAGGTGTCA
 AGGGTCCACGCGGGGAACGTGGAGAGAAAGGAGAGTGGGGCAGCCAGGAGAGCCAGGGCCACCAGGGCC
 TAAAGGCCCCACAGGCGATGATGGCCCCAAAGGGAACCTGGTCTGTTGGTTTTCTGGTACCCTGGC
 CCCCTGGAGAAGGTGGCCCTCGGGGCCAGGATGGTGTAAAGGTGACCGAGGCGAGGATGGTGGCCAG
 GACAGCCTGGATCCCCTGGTCCACCGGGGAGAATGGACCCAGGGCCACTTGAAGGAGGAGTCTGCTG
 TGCTCGCTGGTTCGAGGGGGCACAAGGAGGGAAGGGAGCCAAAGGGAGATCCTGGCGCTATAGGTGCC
 CCGGGGAAGACAGGCCCGGTGGGTCTGACAGGCCAGCAGGGAACCTGGCCCTGATGGTCTGAGGGGGC
 TCCAGGCTCAGTGGGTGAGCAAGGCCGACCTGGAGCTACAGGCCAGGCTGGGCCCCAGGCTCTGTGGG
 ACCCCAGGGTGCCTGGTCTCCGGGGCGATGCTGGAGCCAAGGGAGAGAAGGGCCACCCAGGTCTCATT
 GGACTGATTGGGCCCCCGGGTGAAGCAGGGAGAGAAGGGAGATCGGGGACTTCTGGGCTCAGGGTCCC
 CTGGGCAGAAGGGTGAAGTGGTATCCCAGGAGCATCCGGCCCCATTGGTCTGGAGTCCCCCGGCT
 CCCCAGGCTGCTGGCCCCAAAGGAGCCAAAGGAGCCACAGGCCAGGCCAGGCCAAGGGAGAGAAGGGT
 GTGACAGGCCCTCCAGGACACCCGGTCCCCAGGCGAGGTGATCCAGCCACTGCCATTAGATGCCCA
 AGAAGACTCGGCCTCGGTGGATGGAAGCCGTCTGATGCAGGAAGATGAGGCCATACCGACCGGGGAGC
 CCCCAGGAGTCTGGGGGCTGGAGGAGATCTTTGGTCACTCGACTCCCTGCGGGAGGAGATCGAGCAG
 ATGAGGGGCCAACAGGGACCCAGGACAGCCCTGCTCGCACCTGCCAGGACCTGAAGCTGTGCCACCCAG
 AGCTTCCCGATGGAGAGTACTGGTGCACCCCAACCAGGGCTGTGCTCGGGATGCCTTCCGAGTTTTCTG
 CAACTTACAGCAGGGGGTGAAGCTGTGTGACGCTAGGGATGACGTCACGCAGTTCTCTTACGTGGAC
 TCAGAGGGCTCCCAGTGGGTGTGGTCCAGCTCACCTTCTGCGGCTGCTCAGCGTCTCAGCCCACCAGG
 ACGTCTCCTACCCCTGCTCTGGAGCAGCCGTGACGGTCCCTGAGACTCCGTGGGGCCAATGAGGATGA
 GCTGAGCCCGGAGACTAGCCCTATGTCAAAGAATTAGAGATGGCTGCCAGACACAGCAAGGCCGGACG
 GTGCTGGAGGTGCGAACGCTGTGCTGGAGCAGCTGCCAGTGTGGATGCCTCCTTCTCAGACCTGGGAG
 CCCACCGAGGGGGGAGGGGTGCTGCTGGGGCTGTCTGCTTTCATGGGA

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

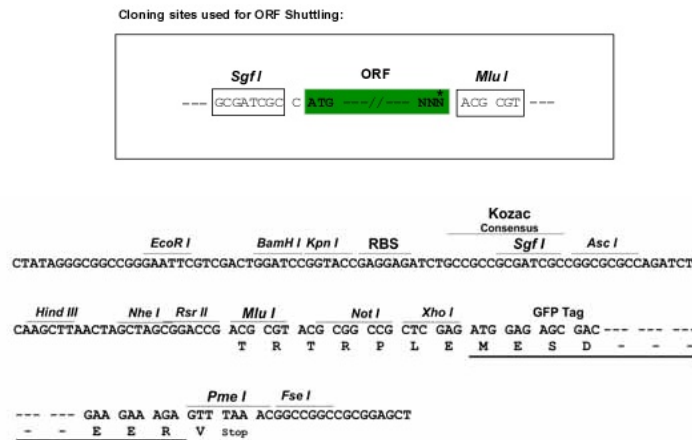
Protein Sequence: >RG218868 representing NM_080681
 Red=Cloning site Green=Tags(s)

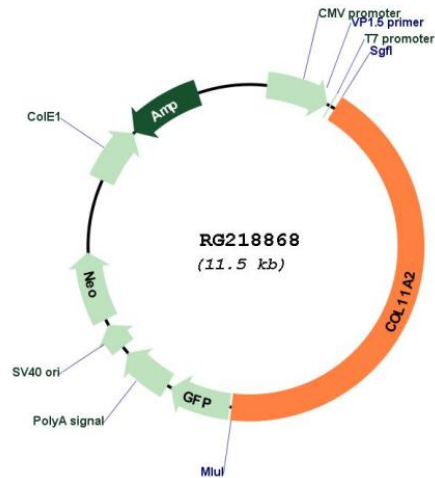
MERCSRCHRLLLLLPLVLGLSAAPGWAGAPPVDVLRALRFPSPDPGVRRRAKICPADVAYRVARPAQLSA
 PTRQLFPGGFPKDFSLLTVVTRTRPGLQAPLLTL YSAQGVRLGLELGRPVRFLYEDQTGRPQPPSQPVFR
 GLSLADGKWHRVAVAVKQSVTLIVDCKKRVTRPLPR SARPVLDTHGVIIFGARILDEEVFEGDVQELAI
 VPGVQAAYESCEQKELECEGGQRERPNQQP HRAQRSPQQQPSRLHRPQNQEPQSDPTPGEEEEILESS
 LLPLEEAAHGPRGLKGEKGEPAVLEPGMLVEGPPGEPAGLIGPPGIQGNPGPVGDPGERGPPGRAGL
 PGSDGAPGPPGTSMLPFRFGSGGGDKGPVVAQAQAQAILQQARLALRGPPGPMGYTGRPGPLGQPGS
 PGLKGESGDLGPQGRGPQGLTGPPGKAGRRRAGADGARGMPGDPGVKGDGRGFDGLPGLPGEKGHRGDT
 GAQGLPGPPGEDGERDDGEIGRGLPGESGPRGLLGPKGPPGIPGPPGVRGMDGPQPKGSLGPQGEPP
 PPGQQGTPTGQLPGPQGAIGPHGEKGPQKPGLPMPGSDGPPGHPGKEGPPGKGNQGPSGPQGPLGY
 PGPGRVKVDGIRGLKGHKGEKGEDGFPFGKDI GVKGDRGEVGPVPSRGEDGPEGPKGRTGPTGDPGPP
 GLMGEKGLGVPGLPGYGRQGPKGS LGFPFGASGEKGARGLSGKSGPRGERGPTGPRGQRGPRGATG
 KSGAKGTSGGDGPHPGPPGERGLPGPQGNFPGPKGPPGPKDGLPGHPGQRGEVGFQKGTGPPGPPGV
 VGPQGAAGETGPMGERGHPGPPGPPGEQGLPGTAGKEGTKGDPGPPGAPGKDGAPLGRFGERGLPGTA
 GPGPLKNEGPSPPGAGSPGERGAAGSGGPIGPPGRPGQPPGAAGEKGVPEKGP IGTGRDGVQG
 PVGLPGPAGPPVAGEDGDKGEVDPGQKGTGNKGEHPPGPPGPIGPVQPGAAGADGEPGARPPQH
 FGAKGDEGTRGFNGPPGPIGLQGLPGSGEKGETGDVGPMPGPPGPRGAPGNADGPPGPPGVNGL
 GPPGEKGEPEGSGSPIQGEVGVKGRGERGEKGESGQPEGPPGPKGPTGDDGPKGNPGPVGFPDGP
 PPGEGGPRQDGA KDRGEDGEPGQPGSPGPTGENGPPGLGKRGPAGSPGSEGRQGGKAKGDPGAIGA
 PGKTGPVGPAGPAGKPGPDGLRGLPGSVGQQGRPGATGQAGPPGPVGPGLPGLRGDAGAKGEKHPGLI
 GLIGPPGEQGEKDRGLPGPQGSQKGE MGI PGASGPIGPPGPPGLPGPAGPKGAKGATGPPGPKGEK
 VQGPPGHPGPPGEVIQPLPIQMPKTRRSVDGSRLMQEDEA IPTGGAPGSPGGL EEIFGSLDSLREEIEQ
 MRRPTGTQDSPARTCQDLKLCHELPDGEYWVDPNQGCARDAFRVFCNF TAGGETCVTPRDVTFQSYVD
 SEGSPVGVVQLTFLRLLSVSAHQDVSYPSCGAARDGPLRLRGANEDELSPETSPYVKEFRDGCQTQQGRT
 VLEVRTPVLEQLPVLDAFSDLGAPRRGGVLLGPVCFMG

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_080681

ORF Size: 4950 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:

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_080681.3](#)

RefSeq Size: 6167 bp

RefSeq ORF: 4953 bp

Locus ID:	1302
UniProt ID:	P13942
Cytogenetics:	6p21.32
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	ECM-receptor interaction, Focal adhesion
Gene Summary:	<p>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]</p>