

## Product datasheet for **RG215364**

### Collagen alpha 1(XXVIII) chain (COL28A1) (NM\_001037763) Human Tagged ORF Clone

#### Product data:

|                           |                                                                                |
|---------------------------|--------------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                            |
| Product Name:             | Collagen alpha 1(XXVIII) chain (COL28A1) (NM_001037763) Human Tagged ORF Clone |
| Tag:                      | TurboGFP                                                                       |
| Symbol:                   | Collagen alpha 1(XXVIII) chain                                                 |
| Synonyms:                 | COL28                                                                          |
| Mammalian Cell Selection: | Neomycin                                                                       |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                                        |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                         |
| ORF Nucleotide Sequence:  | >RG215364 representing NM_001037763<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGTGGAACAGATATTTTGTCTTCTATCTCCTGCTTTTGTGAGCGTTTACGAGTCAAACAGTATCCGGAC  
 AAAGAAAGAAAGGACCAAAATCAAATTTGCTTGAAGGAAAGTGATGTCCAGGGCTCCATTTGTTTCAT  
 AGATATTGTCTTCATCGTGGACAGCTCTGAAAGTTCTAAAATTGCCCTCTTGATAAACAGAAAGATTTT  
 GTGGATAGCTTGAGTGACAAGATTTTCCAATTGACTCCTGGTCTGCTCCTGGAATATGACATCAAACCTGG  
 CAGCCCTTCAGTTTAGCAGCTCTGTCAAATTGATCCACCTTTTCTTCTGGAAGGACCTGCAGACATT  
 TAAGCAGAAGGTCAAGTCTATGAATTTAATAGGGCAAGGTACCTTCTTATTATGCCATTTCCAATGCC  
 ACTAGGCTACTTAAGAGAGAAGGGCGTAAGGATGGTGTGAAAGTGTTTGTCTGATGACTGATGGCATCG  
 ACCATCCAAAGAATCCAGATGTTCAAAGTATTTCTGAAGATGCCAGAATTTCCAGGAATATCATTTATCAC  
 CATTGGACTTTCTACGGTAGTCAATGAAGCCAACTTCGTTTGATTTCTGGGGATTATCCAGTGAACCC  
 ACTTTACTGTTGAGTGATCCAACCCTTGTAGATAAAATTCAGATCGTCTGGATATCTTATTTGAAAAGA  
 AGTGTGAACGCAAGATTTGTGAATGTGAGAAGGGAGATCCAGGTGATCCAGGGCCTCCTGGTACACATGG  
 AAATCCAGGTATCAAAGGTGAGCGAGGACCAAAAGGAAACCCGGGCAACGCTCAAAAAGGAGAAGCTGGA  
 GAAAGAGGTCCAGGGGAATTCCTGGGTACAAGGTGACAAGGTGAACGTGGGGAATGTGTTAAACCAG  
 GGATAAAAGGTGACAAGGGATCCCAGGGCCATATGGACCAAGGGACCCAGAGGAATTCAGGGAATTAC  
 TGGACCTCCAGGAGACCCAGGCCAAAGGGTTTCAAGGCAATAAGGGTGAGCCAGGTCTCTGTCCT  
 TATGGTTCTCCAGGAGCTCCTGGAATTGGACAGCAAGGTATTAAGGGAGAAAGAGGCCAAGAAGGAAGAC  
 CGGGAGCTCCAGGACCCATTGGAGTTGGTGAAGCTGGACAGCCAGGTCCCGTGGTCTGAGGGAGTACC  
 AGGAGAGAGGGGCTTACCCGGAAGGATTTCCAGGACCAAGGGTGAAAAAGGTTCTGAAGGACCAACT  
 GGCCACAGGGATTACAAGGCCTGTCAATCAAAGGGGAGAAGGGGATATAGGACCTGTGGGACCCCAAG  
 GACCAATGGGTATCCCTGGAATCGGGAGTCAAGGGGAACAGGGAATCCAAGGTCTATTGGTCCACCTGG  
 TCCACAAGGGCCCGCAGGACAGGCTTACCTGGTTCCAAGGGAGAAGTAGGCCAAATGGGACCTACAGGC


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CCTCGAGGACCACTGGGAATTGGAGTACAAGGTCCAAAGGGAGAGCCAGGCTCAATAGGGCTCCCAGGAC  
AACCAGGAGTACCAGGAGAAGATGGAGCTGCAGGGAAGAAGGGAGAAGCGGGGCTTCCGGGAGCAAGAGG  
CCCAGAAGGACCACTGGAAAAGGACAGCCTGGCCCCAAGGGTGACGAAGGCAAGAAAGGGAGCAAAAGGA  
AATCAAGGACAGAGGGGACTTCCAGGGCCCAAGGACCAAGGGTGAAACCGGGCATTATGGGCCCTTTTG  
GAATGCCTGGAACATCAATTCTGGACCACCTGGGCCAAAGGGAGATAGAGGAGGACCTGGGATACCTGG  
ATTTAAGGAGAACCTGGACTTTCTATTCGAGGACCAAGGGTGTCGAAGGCCCTCGGGGACCACTGGGT  
GCTCCAGGACTCAAAGGTGATGGCTATCCTGGTGTGCCTGGACCTCGTGGATTACCAGGACCCCTGGGC  
CGATGGGTTTACGTGGAGTGGGAGACACTGGAGCAAAAGGGAGAGCCTGGGGTCAGAGGCCCTCCAGGTCC  
TTCTGGGCCTCGGGCGTAGGAACCCAAGGGCCAAAGGGTGATACTGGGCAGAAAGGCTTGCCTGGCCCT  
CCTGGCCCCCTGGCTATGGATCACAGGAATTAAGGGGAACAAGGACCACAAGGCTTCCAGGCCCAA  
AGGGCACAATGGCCATGGCCTCCAGGCCAGAAGGGAGACGAGGAGAAGCGGGCGATGTGGAAAGAA  
AGGTGATAAAGGAGAAATTGGAGAGCCTGGATCTCCAGGAAAACAGGGTTTACAAGGACCCAAAGGAGAC  
CTAGGACTTACAAAAGAAGAAATTATCAAACTTATTACAGAAATATGTGGTTGTGGGCCCAAATGCAAG  
AGACTCCACTAGAGCTGGTGTGTGATCGACAGCTCAGAAAGCGTGGGGCCAGAGAACTTTCAGATCAT  
TAAAAATTTTGTGAAGACTATGGCTGACCGGGTGTCTGACCTTGCCACGGCCCGCATAGGCATAATC  
AACTATAGCCATAAGGTGGAGAAGGTGGCTAATTTGAAGCAGTTCTCCAGCAAGGATGACTTCAAGTTGG  
CTGTGGACAACATGCAGTATCTGGGGGAAGGCACATACACAGCCACTGCTCTGCAAGCAGCCAACGACAT  
GTTTGAAGATGCAAGGCCAGGTGTAAGGAGTGGCCTTGGTCATCACTGATGGACAGACAGATTCTCGT  
GATAAAGAGAACTGACAGAGGTGGTGAAGAATGCCAGTGACACCAATGTGGAGATATTTGTGATAGGGG  
TGGTGAAGAAAAATGATCCCACTTTGAAATATCCACAAAGAAATGAATCTAATTGCTACTGACCCAGA  
GCATGTTTACAGTTTGATGATTTCTTTACCCTGCAAGACACCCTGAAGCAAAATTTGTTCAAAAAATT  
TGTGAGGATTTTGATTCTATCTCGTTCAAATTTTGGTTCATCGTCACCTCAACCTGGATTGGGATGT  
CAGGGGAAGAACTCAGTGAATCTACTCCAGAGCCTCAAAAGAAATTTCTGAGTCATTGAGTGTCAACAG  
AGACCAGGATGAAGATGATAAGGCTCCAGAGCCAACGTGGGCTGATGATCTGCCTGCCACTACCTCATCT  
GAGGCCACCACCACCCAGGCCACTGCTCAGCACCCCTGTGGATGGGGCAGAGGATCCTAGATGTTTGG  
AAGCCTTGAAGCCTGAAACTGTGGTGAATATGTGTTTCGATGGTATTATGACAAACAGGTCAACTCTTG  
TGCCCCGATTTTGGTTCACTGGCTGTAATGGCTCAGGAAATAGATTCAACAGTGAAAAGGAATGTCAAGAA  
ACCTGCATTCAAGGA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG215364 representing NM\_001037763

Red=Cloning site Green=Tags(s)

MWNRVVFYLLLLSAFTSQTVSGQRKKGPKSNLLARKSDVQGSICFIDIVFIVDSSESKIALFDKQKDF  
VDSLSDKIFQLTPGRSLEYDIKLAALQFSSSVQIDPPFSSWKDLQTFKQKVKSMNLIGQGTFSYYAISNA  
TRLLKREGRKDGKVVLLMTDGDIDHPKNPDVQSI SEDARISGISFITIGLSTVVNEAKLRLISGDSSESEP  
TLLLSDPTLVDKIQDRLDILFEKKCERKICECEKGDPGDPGPPGTHGNPGIKGERGPKGNPGNAQKGEAG  
ERPGGIPGYKGDKGERGECGKPGIKGDKGSPGYGPKGPRGIQGITGPPGDPGPKGFQGNKGEPGPPGP  
YGSPGAPGIGQQGIKGERGQEGRPAGPGPIGVGEPGQPGPRGPEGVPERGLPGEGFPKGEKGESEGT  
GPQGLQGLSIKGEKGDIGVGPQGMPIGIGSQEQGIQGIPIPPGPQGPAGQGLPGSKGEVGMGPTG  
PRGPVIGVQGPKEPGSIGLPQGPVPGEDGAAGKKGEAGLPARGPEGPPGKGPQGPKEGKKGSKG  
NQQRGLPGPEGPKGEPGIMPGMPGTIPGPPGPKGDRGGPGIPGFKGEPGLSIRGPKGVQGPGRPVG  
APGLKGDGYPGVPGRGLPGPPGPMGLRGVGDGTAKGEPGVRGPPGSGPRGVGTGQPKGDTGQKGLPGP  
PGPPGYGSQGIKGEQGPQGFPGPKGTMGHGLPGQKGEHGERGDVKKGDKGEIGEPGSPGKQGLQGPKG  
LGLTKEEIIKLITEICGCGPKCKETPLELVFVIDSSESVGPENFQIIKNFVKTMADRVALDLATARIGII  
NYSKVKVAVANLKQFSSKDDFKLAVDNMQYLGEGTYTATALQAANDMFEDARPGVKVALVITDGTDSR  
DKEKLTEVVKNASDTNVEIFVIGVVKNDPNFEIFHKEMNLIATDPEHVYQFDDFFTLQDTLKQKLFQKI  
CEDFDSYLVQIFGSSSPQPGFGMSGEELSESTPEPQKEISELSVTRDQEDDDKAPEPTWADDLPATTSS  
EATTTTPRPLLSTPVDGAEDPRCLEALKPGNCGEYVVRWYDKQVNSCARFWFSGCNGSGNRFNSEKECQE  
TCIQG

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI  
 CTATAGGCGCGCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT  
 HindIII NheI RsrII MluI NotI XhoI GFP Tag  
 CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---  
 T R T R P L E M E S D - - -  
 PmeI FseI  
 --- GAA GAA AGA GTT TAA ACGGCCGGCCGGAGCT  
 - - E E R V Stop

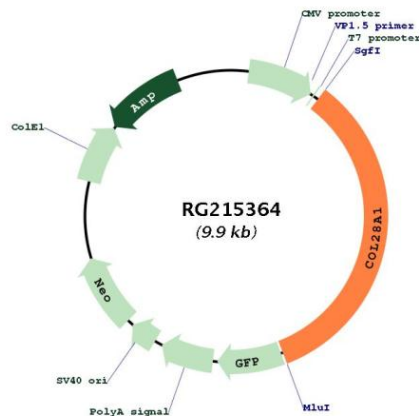
ACCN: NM\_001037763

ORF Size: 3375 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](#)

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.                                                                                                                                                                                                                                                                                                                                                                                    |
| <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>NM_001037763.1, NP_001032852.1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>RefSeq Size:</b>           | 3515 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RefSeq ORF:</b>            | 3378 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Locus ID:</b>              | 340267                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>UniProt ID:</b>            | <u>Q2UY09</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cytogenetics:</b>          | 7p21.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Gene Summary:</b>          | COL28A1 belongs to a class of collagens containing von Willebrand factor (VWF; MIM 613160) type A (VWFA) domains (Veit et al., 2006 [PubMed 16330543]).[supplied by OMIM, Nov 2010]                                                                                                                                                                                                                                                                                                                                     |

## Product images:



Circular map for RG215364