

## Product datasheet for RC219034

### Endostatin (COL18A1) (NM\_030582) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Endostatin (COL18A1) (NM_030582) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	COL18A1
Synonyms:	GLCC; KNO; KNO1; KS
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC219034 representing NM_030582 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCTCCCTACCCCTGTGGCTGCCACATCCTGCTGCTGCTCTTCTGCTGCCTGGCGGTGCCCGGGCCA  
ACCTGCTGAACCTGAACCTGGCTTTGGTTCAATAATGAGGACACCAGCCATGCAGTACCACGATCCCTGA  
GCCCCAGGGGCCCTGCCTGTGCAGCCACAGCAGATACCACCACACACGTGACCCCGGAATGGTTCC  
ACAGAGCCAGCGACAGCCCTGGCAGCCCTGAGCCACCCTCAGAGCTGCTGGAAGATGGCCAGGACACC  
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GGCCAAAGGCATCCGGAGCTTCTGTCCAGCTGTGGAATGACACTGTCCCCACTGAGAGCTTGGCCAGGGCG  
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AAGAGGGCGGCCTGAAGGGGCAGAAAGGGGAGCCAGGTGTTCCGGGCCACCTGGCCGGGACGGCCCCC  
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Protein Sequence: >RC219034 representing NM\_030582  
 Red=Cloning site Green=Tags(s)

MAPYPCGCHILLLLFCCLAAARANLLNLNWLWFNNEDTSHAATTIPEPQGPLPVQPTADTTTHVTPRNGS  
 TEPATAPGSPEPPSELLEDGQDTPTSAPSPDAPEENIAGVGAELNVAKGIRSFVQLWNDTVPTESLARA  
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 GDDSDGASGDSGSLGDARELLREETGAALKPRLPAPPPVTTPLAGSSTEDSRSEEVEEQTTVASLGA  
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 DNEVAALQPPVVLHDSNPYRREHHPHTARPWRADDILASPPRLPEPQYPGAPHHSSVYHLRPARPTS  
 PPAHSHRDFQPVLHLVALNSPLSGMIRGADFCQFQARAVGLAGTFRFLSSRLQDLYSIVRRADRA  
 AVPIVNLKDELLFPSWEALFSGSEGPKPGARIFSFQDKDVLRHPTWPKSVWHGSDPNRRRLTESYCET  
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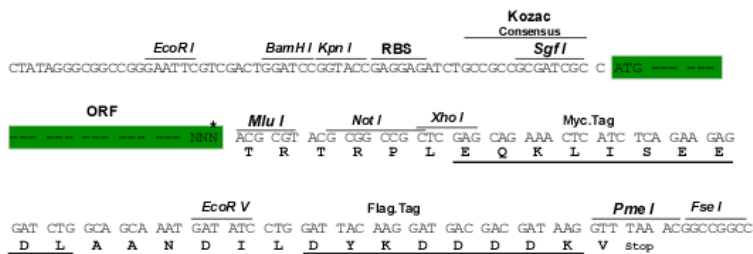
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

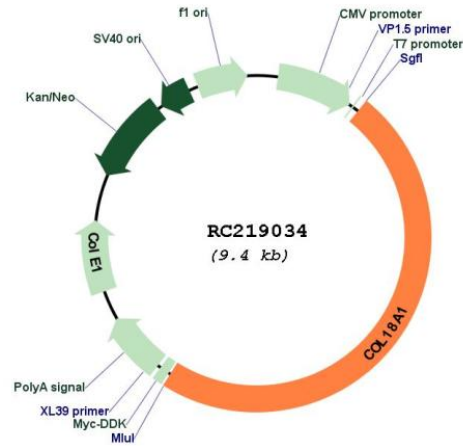
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_030582

**ORF Size:** 4548 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\\_030582.4](#)

**RefSeq Size:** 5910 bp

**RefSeq ORF:** 4551 bp

**Locus ID:** 80781

**UniProt ID:** [P39060](#)

**Cytogenetics:** 21q22.3

**MW:** 153.8 kDa

**Gene Summary:** This gene encodes the alpha chain of type XVIII collagen. This collagen is one of the multiplexins, extracellular matrix proteins that contain multiple triple-helix domains (collagenous domains) interrupted by non-collagenous domains. A long isoform of the protein has an N-terminal domain that is homologous to the extracellular part of frizzled receptors. Proteolytic processing at several endogenous cleavage sites in the C-terminal domain results in production of endostatin, a potent antiangiogenic protein that is able to inhibit angiogenesis and tumor growth. Mutations in this gene are associated with Knobloch syndrome. The main features of this syndrome involve retinal abnormalities, so type XVIII collagen may play an important role in retinal structure and in neural tube closure. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014]