

Product datasheet for **SC305890**

Endostatin (COL18A1) (NM_130445) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Endostatin (COL18A1) (NM_130445) Human Untagged Clone
Tag:	Tag Free
Symbol:	Endostatin
Synonyms:	KNO; KNO1; KS
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_130445 edited
 ATGGCGCCGAGGTGCCCCCTGGCCATGGCCGCGGGCGGGCCCTCTGGACGTGCTCGGC
 CCCCTGGTCTGCTGCTCGGGTCCGCGCGGCCCTCCGCGGAGCCAGAGCGCATCAGCGAG
 GAGGTGGGGCTGCTGCAGCTCCTTGGGGACCCCGCCAGCAGGTACCCAGACGGAT
 GACCCCGACGTGCGGCTGGCCTACGTCTTTGGGCCAGATGCCAACAGTGGCCAAGTGGCC
 CGGTACCACCTTCCCAGCCTCTTCTTCCGTGACTTCTCACTGCTGTTCCACATCCGGCCA
 GCCACAGAGGGCCAGGGGTGCTGTTCCGCCATCACGGACTCGGCGCAGGCCATGGTCTTG
 CTGGGCGTGAAGCTCTCTGGGGTGCAGGACGGGCACCAGGACATCTCCCTGCTCTACACA
 GAACAGGTGCAGGCCAGACCCACACAGCCGCCAGCTTCCGGCTCCCGCCTTCGTGGC
 CAGTGGACACACTTAGCCCTCAGTGTGGCAGGTGGCTTTGTGGCCCTCTACGTGGACTGT
 GAGGAGTTCAGAGAATGCCGCTTGCTCGGTCCACGGGGCCTGGAGCTGGAGCCTGGC
 GCCGGGCTCTTCGTGGCTCAGGCGGGGGAGCGGACCCTGACAAGTTCAGGGGGTGATC
 GCTGAGCTGAAGGTGCGCAGGGACCCCAAGGTGAGCCCATGCACTGCCTGGACGAGGAA
 GGCGATGACTCAGATGGGGCATCCGGAGACTCTGGCAGCGGGCTCGGGGACGCCCGGGAG
 CTTCTCAGGGAGGAGACGGGCGCGGCCCTAAAACCCAGGCTCCCGCGCCACCCCGGTC
 ACCACGCCACCCTTGGCTGGAGGCAGCAGCAGGAAGATTCCAGAAGTGAAGAAGTCGAG
 GAGCAGACCACGGTGGCTTCGTTAGGAGCTCAGACACTTCTGGCTCAGATTCTGTCTCC
 ACGTGGGACGGGAGTGTCCGACCCCTGGGGCCCGGTGAAAGAGGGCGGCTGAAGGGG
 CAGAAAGGGGAGCCAGGTGTTCCGGGCCACCTGGCCGGGACGGCCCGCCAGGATCCCCA
 TGCTACCTGGTCCCGGGTCTCCCGTCCAGTGAAGTCCCTGGGTCTGCAGGCCCA
 GCGTTGCAAACTGTCCCGGACCACAAGGACCCCAAGGGCCTCCGGGGAGGGACGGCACC
 CCTGGAAGGGACGGCGAGCCGGGCGACCCCGGTGAAGACGAAAGCCGGGCGACACCGGG
 CCACAAGGCTTCCCGGGACTCCAGGGGACGTAGGTCCCAAGGGCGACAAGGGAGACCT
 GGGGTTGGAGAGAGAGGGCCCCAGGACCCCAAGGGCCTCCAGGGCCCCAGGACCTCC
 TTCAGACACGACAAGCTGACCTTATTGACATGGAGGGATCTGGCTTCGGGGGCGATCTG
 GAGGCCCTGCGGGTCTCGAGGCTTCCCTGGACTCCCGGACCCCGGTGTCCAGGC
 CTGCCCGCGAGCCAGGCGCTTTGGGGTGAACAGCTCCGACGTCCAGGACCCGCGGG



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CTTCTGGTGTGCCTGGGCGGAGGGTCCCCCGGGTTTCTGGCCTCCCGGGACCCCCA
 GGCCCTCCGGGAAGAGAGGGGCCCCAGGAAGGACTGGGCAGAAAGGCAGCCTGGGTGAA
 GCAGGCGCCCCAGGACATAAGGGGAGCAAGGGAGCCCCGGTCTGCTGGTGTCTGTTGGG
 GAGAGCGGCTGGCAGGAGCCCCGGACCTGCTGGACCACCAGGCCCCCTGGGCCCCCT
 GGGCCCCCAGGACCAGGACTCCCCGCTGGATTTGATGACATGGAAGGCTCCGGGGGGCC
 TTCTGGTCAACAGCCCCAAGCGCTGATGGGCCACAGGGACCTCCGGCCTGCCGGGACTT
 AAGGGGATCCTGGCGTCCCTGGGCTGCCGGGGGCGAAGGGAGAAGTTGGAGCAGATGGA
 GTCCCCGGTTCCCCGGCTCCCTGGCAGAGAGGGCATTGCTGGGCCCCAGGGGCCAAAG
 GGAGACAGAGGCAGCCGGGAGAAAAGGAGATCCAGGGAAGGACGGAGTCGGGCAGCCG
 GGCTCCCTGGCCCCCGGACCCCGGACCTGTGGTCTACGTGTCGGAGCAGGACGGA
 TCCGCTCTGAGCGTGCCGGGACCTGAGGGCCGGCCGGTTTTCGACGGCTTCCCGGACCT
 GCAGGACCCAAGGGCAACCTGGGCTCTAAGGGCGAACGAGGCTCCCGGGACCCAAGGT
 GAGAAGGGTGAACCGGCAGCATCTTCAGCCCCGACGGCGGTGCCCTGGGCCCTGCCAG
 AAAGGAGCCAAGGGAGAGCCGGGCTTCCGAGGACCCCGGGTCCATACGGACGGCCGGG
 TACAAGGGAGAGATTGGCTTTCTGGACGGCCGGTTCGCCCGGATGAACGGATTGAAA
 GGAGAGAAAGGGGAGCCGGGAGATGCCAGCCTTGATTGGCATGAGGGGAATGCCCGGC
 CCCCCAGGACCTCCAGGGCCCCAGGCCCTCCAGGGACTCCTGTTTACGACAGCAATGTG
 TTTGCTGAGTCCAGCCGCCCGGGCCTCCAGGATTGCCAGGGAATCAGGGCCCTCCAGGA
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 TTTCTTCAAGTGGAGGCTGAAATGAAGGGGAGAAGGGAGACCGAGGTGATGCAGGACAG
 AAAGGCGAAAGGGGGAGCCGGGGGCGCGGTTTCTTCGGCTCCAGCCTGCCCGCCCC
 CCCGGCCCCCAGGCCACGTGGCTACCCTGGGATTCCAGTCCCAAGGGAGAGAGCATC
 CGGGGCCAGCCCCGCCACCTGGACCTCAGGGACCCCCCGCATCGCTACGAGGGGCGC
 CAGGGCCCTCCCCGGCCCCCAGGCCCCCCAGGGCCCCCTTCATTTCTGGCCCTCACAGG
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 ATGGGCGCCTCCTCAGGGGTGAGGCTCTGGGCTACACGCCAGGCCATGCTGGGCCAGGTG
 CACGAGGTTCCCGAGGGCTGGCTCATCTTCGTGGCCGAGCAGGAGGAGCTCTACGTCGCG
 GTGCAGAACGGGTTCCGGAAGGTCCAGCTGGAGGCCCGGACACCACTCCACGAGGGACG
 GACAATGAAGTGGCCGCTTGCAGCCCCCGTGGTGCAGCTGCACGACAGCAACCCTAC
 CCGCGGGGGAGACCCCCACCCACCCGCGGGCCCTGGCGGGCAGATGACATCCTGGCC
 AGCCCCCTCGCTGCCGAGCCCCAGCCCTACCCCGGAGCCCCGCACCACAGCTCCTAC
 GTGCACCTGCGGCGGGCGGACCCACAAGCCACCCGCCACAGCCACCCGACTTCCAG
 CCGGTGCTCCACCTGGTTGCGCTCAACAGCCCCCTGTAGGCGGCATGCGGGGCATCCGC
 GGGGCCGACTTCCAGTGTTCACAGCAGGCGGGCCGTGGGGCTGGCGGGCACCTTCCGC
 GCCTTCTGTCTCGCGCTGCAGGACCTGTACAGCATCGTGGCCGTGCCGACCCGCGCA
 GCCGTGCCATCGTCAACCTCAAGGACGAGCTGCTGTTTCCAGCTGGGAGGCTCTGTTT
 TCAGGCTCTGAGGGTCCGCTGAAGCCCGGGCACGCATCTTCTCTTTGACGGCAAGGAC
 GTCCTGAGGACCCACCTGGCCCCAGAAGAGCGTGTGGCATGGCTCGGACCCCAACGGG
 CGCAGGCTGACCGAGAGCTACTGTGAGACGTGGCGGACGGAGGCTCCCTCGGCCACGGG
 CAGGCCTCTCGCTGCTGGGGGGCAGGCTCCTGGGGCAGAGTGCCGCGAGCTGCCATCAC
 GCCTACATCGTCTGCTGATTGAGAACGCTTCATGACTGCCTCCAAGTAG

Restriction Sites: Please inquire
ACCN: NM_130445
Insert Size: 4000 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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: The ORF of this clone has been fully sequenced and found to be a perfect match to NM_130445.1.

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_130445.1](#), [NP_569712.1](#)

RefSeq Size: 5398 bp

RefSeq ORF: 4011 bp

Locus ID: 80781

UniProt ID: [P39060](#)

Cytogenetics: 21q22.3

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]

Transcript Variant: This variant (2, also known as NCI-303) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at an alternate start codon compared to variant 3. The encoded isoform (2) has a distinct and shorter N-terminus compared to isoform 3.