

# Recombinant Murine Collagen, Type XVIII, Alpha 1

Cat. No. Col18a1-199M    Lot. No. (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Overview        | Recombinant Murine collagen, type XVIII, alpha 1 was expressed in <i>Pichia pastoris</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Species                 | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Source                  | P.pastoris                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Description             | Endostatin has been identified as a C-terminal fragment of Collagen type 18, a recently identified member of a family of collagen-like proteins referred to as multiplexin family. Endostatin specifically inhibits proliferation of endothelial cells although it does not affect the proliferation of EOMA cells. Endostatin also potently inhibits angiogenesis and tumor growth. Endostatin has an important role in endothelial cell adhesion and cytoskeletal organization. Endostatin can be found in vessel walls (elastic fibers) and basement membranes. Recombinant Endostatin expressed in yeast causes G1 arrest of endothelial cells, and endostatin treatment results in apoptosis of HUVE and HMVE cells. |
| Biochem/Physiol Actions | Endostatin is a potent inhibitor of angiogenesis and tumor growth in vitro and in vivo; specifically inhibits endothelial cell proliferation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Physical Form           | 17 mM citric-phosphate buffer, pH 6.2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Assay                   | ≥95% (HPLC).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Concentration           | 4 mg/mL (17 mM citric-phosphate buffer, pH 6.2).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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**Total Impurities** Endotoxin, tested.

**Storage Temp** -70°C.

## GENE INFORMATION

**Gene Name** Col18a1 collagen, type XVIII, alpha 1 [ Mus musculus ]

**Synonyms** Col18a1; collagen, type XVIII, alpha 1; endostatin

**Gene ID** 12822

**mRNA Refseq** NM\_001109991

**Protein Refseq** NP\_001103461

**UniProt ID** P39061

**Chromosome Location** 10 B5-C1; 10 41.3 cM

**Function** binding; extracellular matrix structural constituent; metal ion binding; structural molecule activity

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