

# Recombinant Mouse COL18A1/Endostatin Protein (His Tag)



Catalog Number:PKSM040987

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

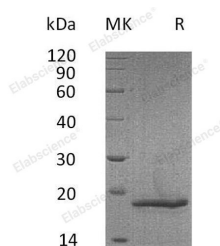
## Description

|                                    |  |
|------------------------------------|--|
| <b>Synonyms</b>                    | antiangiogenic agent;COL18A1;collagen alpha-1(XVIII)chain;collagen;type XVIII;Endostatin |
| <b>Species</b>                     | Mouse  |
| <b>Expression Host</b>             | HEK293 Cells   |
| <b>Sequence</b>                    | His1591-Lys1774  |
| <b>Accession</b>                   | P39061   |
| <b>Calculated Molecular Weight</b> | 21.2 kDa   |
| <b>Observed molecular weight</b>   | 18 kDa   |
| <b>Tag</b>                         | C-His  |

## Properties

|                       |   |
|-----------------------|---|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.  |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.   |
| <b>Storage</b>        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.       |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.   |
| <b>Formulation</b>    | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.  |

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

Endostatin, an endogenous non-glycosylated inhibitor of endothelial cell proliferation and angiogenesis. It is produced and/or trimmed by metalloproteinases such as MMP-2 and MMP-9, and cathepsins S, B and L. The N-terminal ~27 aa of Endostatin appear to contain the majority of its activity. This region contains zinc binding sites that are thought to be critical for its anti-endothelial and anti-tumor effects, as well as multiple cleavage sites that, when used, can modify its activity. Mouse Endostatin shares 96% aa sequence identity with rat and 85-87% with human, bovine and equine Endostatin. It is predominantly expressed in liver, kidney, lung, skeletal muscle and testis. Endostatin inhibits endothelial cell growth by inducing cell cycle arrest in G1 phase and initiating apoptosis. It is also thought to down-regulate

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angiogenesis by blocking VEGF-induced endothelial cell migration. Endostatin may also be involved with down-regulation of angiogenesis after establishment of placental circulation in the pregnant uterus.

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