

Recombinant Human Endostatin

Certificate of Analysis and Data Sheet

➤ Source: Pichia Pastoris	➤ Catalog No. PRO-248
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➤ **Background:**

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

➤ **Description :**

Recombinant Human Endostatin produced in Pichia Pastoris is a single, glycosylated, polypeptide having a total molecular mass of 20,000 Dalton C-terminal fragment of collagen XVIII that has been shown to act as a potent inhibitor of angiogenesis and tumor growth in vitro and in vivo. Induces tyrosine phosphorylation of Shc (SH2 domain adapter protein) leading to specific inhibition in endothelial cell proliferation. Recombinant Endostatin is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile filtered liquid formulation 1mg/ml.

➤ **Stability:**

Human Endostatin although stable at 4 C for 30 days, should be stored desiccated below -20 C for periods greater than 30 days.

Please avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Amino acid sequence:**

In total agreement with the expected amino acid composition of native human Endostatin .

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Human Endostatin is fully biologically active when compared to standards. The activity calculated by ECE migration inhibition was found to be 50,000IU/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Endostatin.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.
2. Analysis by RP-HPLC, using a calibrated solution of Endostatin as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.