



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet Recombinant Human Endostatin

Catalog No.
228-10389

Source:
Pichia Pastoris

Introduction:

Once a cluster of cancer cells reaches a diameter of about 1–2 mm, it must develop a blood supply in order to grow larger. Given that diffusion is no longer adequate to supply the cancerous cells with oxygen and nutrients and to remove wastes. Therefore, these cells secrete substances that promote the formation of new blood vessels (angiogenesis), which are vital for the growth and persistence of solid tumors and their metastases.

The production of several angiogenic factors (FGF-a, FGF-b, VEGF and VPF) is upregulated by tumors in order to stimulate angiogenesis. However, numerous malignant tumors also generate inhibitors of angiogenesis which include angiostatin and thrombospondin. The angiogenic phenotype is basically the end result of a net balance between the positive and negative regulators of neovascularization mentioned above. Endostatin's role is to inhibit endothelial proliferation, therefore it is an effective angiogenesis inhibitor.

Description:

Endostatin Human Recombinant 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.

The Endostatin is purified by proprietary chromatographic techniques.

Physical Appearance:

Sterile filtered liquid formulation.

Formulation:

The recombinant Human Endostatin is formulated with PBS.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Stability:

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) Analysis by SDS-PAGE.

Amino Acid Sequence:

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

Biological Activity

The activity calculated by ECE migration inhibition was found to be 50,000IU/mg.

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