



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Angiostatin Kringles 1-3

Catalog No.
228-10051

Source
Escherichia Coli

Synonyms

Angiostatin, Angiostatin Kringles 1-3, Ang K1-3.

Introduction

Ang K1-3 is a proteolytic fragment of plasminogen containing the first three kringle structures. A specific inhibitor of endothelial cell growth and angiogenesis. More active relative to kringles 1-4. Ang K1-3 reduces endothelial cell proliferation and acts as a potent inhibitor of angiogenesis and tumor growth.

Description

Angiostatin Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 259 amino acids and having a molecular mass of approximately 30.0 kDa. The Ang K1-3 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 μ m filtered concentrated (1.0mg/ml) solution in 20mM NaAc, pH5.5, 4% mannitol.

Solubility

We recommend to briefly centrifuge the vial prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

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



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Stability

The lyophilized Angiostatin K1-3 is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C.

Avoid repeated freeze/thaw cycles.

Amino Acid Sequence

VYLSECKTGN GKNYRGTMSK TKNGITCQKW SSTSPHRPRF SPATHPSEGL
EENYCRNPDN DPQGPWCYTT DPEKRYDYCD ILECEEECMH CSGENYDGKI
SKTMSGLECQ AWDSQSPHAH GYIPSKFPNK NLKKNYCRNP DRELRPWCFT
TDPNKRWELC DIPRCTTPPP SSGPTYQCLKGTGENYRGNV AVTVSGHTCQ
HWSAQTPHTH NRTPENFPCK NLDENYCRNP DGKRAPWCHT TNSQVRWEYC
KIPSCDSSP.

Purity

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Biological Activity

The activity is assayed on anti-proliferation and anti-migration of endothelial cells in vitro and anti-angiogenesis in vivo. The specific activity of anti-migration of endothelial cells in vitro is 0.55×10⁵ Units/mg.

Protein content

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 2.08 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a standard solution of Ang K1-3 as a Reference Standard.

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