



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Aprotinin

Catalog No.
228-10071

Source:
Bovine Lung

Synonyms:

Pancreatic trypsin inhibitor, Basic protease inhibitor, BPI, BPTI, Aprotinin, AP.

Introduction:

Aprotinin inhibits the activity of several proteolytic enzymes such as chymotrypsin, kallikrein, plasmin and trypsin. Aprotinin is present in blood and in most tissues, with a high concentration in lung. Aprotinin inhibits pro-inflammatory cytokine release and maintains glycoprotein homeostasis. In platelets, aprotinin reduces glycoprotein loss (e.g., GpIb, GpIIb/IIIa), while in granulocytes it prevents the expression of pro-inflammatory adhesive glycoproteins (e.g., CD11b).

Description:

Aprotinin is a natural proteinase inhibitor polypeptide consisting of fifty-eight amino acids $\{C_{284}H_{432}N_{84}O_{79}S_7\}$ arranged in a single polypeptide chain, cross-linked by three disulfide bridges and having a molecular mass of 6512.

Source:

Bovine Lung

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

The protein (1 mg/ml) was lyophilized with no additives.

Solubility:

It is recommended to reconstitute the lyophilized Aprotinin in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Purity:

Greater than 98.0% as determined by:

- Analysis by RP-HPLC.
- Analysis by SDS-PAGE.

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



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Stability:

Lyophilized Aprotinin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution Aprotinin should be stored at 4°C between 2-7 days and for future use below -18°C .

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Unit Definition:

1 Unit corresponds to 1 biological kallikrein inhibitor unit (KIU)

1 TIU \cong 1,300 KIU

Activity:

6,462 KIU (Kallikrein Inactivator Units) per mg, 4.97 TIU/mg.

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