APROTININ

REF 5D-62106(-1)

(Trypsin inhibitor, pancreatic Alkaline)
from bovine lung

For Laboratory Use Only.
Not for use in human or direct animal applications.

Store at 2-8°C
Lyophilized Powder, 250 mg or 1000 mg

DESCRIPTION
APROTININ, lyophilized powder. Trypsin inhibitor, pancreatic alkaline. Aprotinin is a multiple inhibitor of many serine proteases, including Trypsin, Plasmin, Urokinase, Kallikrein, Factor XIIa, etc. It contains 58 amino acids. It forms stable complexes with these enzymes.

FORMULA
$C_{284}H_{432}N_{84}O_{79}S_7$

MOLECULAR WEIGHT
6512 daltons

COMPOSITION
Aprotinin powder, lyophilized.

SOLUBILITY
≥ 25 mg/mL in distilled water.

APROTININ ACTIVITY
Aprotinin was tested with Pharmacopoeias' compliant methods for its inhibitory potency of Trypsin, expressed as "Trypsin Inhibitory Units" (TIU). 1 TIU inhibits 50% of the activity of 2 Units of Trypsin.

PRINCIPLE
Aprotinin can be used in any application where inhibition of its targeted proteases is needed. Current uses include protein isolation, removal of reactive proteases through solid phase, inhibition of undesired proteolytic activity in laboratory assays, or other techniques; for blocking fibrinolytic activity in vitro; etc.

PREPARATION
The vial contains 250 mg, and can be restored with 5 mL distilled water for obtaining a solution at about 50 mg/mL.

STANDARDIZATION
Aprotinin has a specific activity of about 6,100 KIU/mg (this corresponds to about 6.0 TIU/mg or about 3.35 PEU/mg).

APPLICATIONS
Aprotinin can be used for e.g., the determination of:
1. Targeted proteases inhibition
2. Laboratory assays and techniques
3. Protein purification

STORAGE AND STABILITY
Lyophilized Aprotinin: Stable at 2-8°C up to the expiration date printed on the label; after reconstitution with distilled water: up to 6 months stored at ≤ -20°C.

Aprotinin Solution: contamination by microorganisms must be avoided.

NOTE: Aprotinin contains no preservatives; after reconstitution it must be used rapidly or stored frozen. Alternatively, a preservative (for example sodium azide at 0.9 mg/mL) can be added.

WARNINGS AND PRECAUTIONS
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REFERENCES
1. Lottenberg R, Sjak SN, Fazleabs AT, Roberts RM. Aprotinin inhibits urokinase but not tissue-type plasminogen activator. Thromb Res 1988; 49: 549-56.
2. Fritz H, Wunderer G. Biochemistry and applications of aprotinin, the kallikrein-inhibitor from bovine organs. Arzneim Forsch./Drug. Res. 1983; 33: 479-94.

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