

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

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# Data Sheet (Cat.No.T3359)



#### Aprotinin

#### **Chemical Properties**

CAS No.: 9087-70-1

Formula: C284H432N84O79S7

Molecular Weight: 6511.51

Appearance: no data available

Storage: keep away from moisture

Powder: -20°C for 3 years | In solvent: -80°C for 1 year



#### **Biological Description**

| Description   | Aprotinin (Traskolan) a broad-spectrum serine protease inhibitor, inhibiting the activity of a number of different esterases and proteases, including trypsin, chymotrypsin, kallikrein, plasmin, tissue plasminogen activator, and tissue and leukocytic proteinases.   |  |  |  |
|---------------|--|--|--|--|
| Targets(IC50) | Others, Serine Protease, Influenza Virus, Proteasome   |  |  |  |
| In vitro      | Aprotinin is an antifibrinolytic molecule that inhibits trypsin and related proteolytic enzymes. In cell biology, aprotinin is used as an enzyme inhibitor to prevent protein degradation during lysis or homogenization of cells and tissues. In the presence of aprotinin, the fibrinolytic activity is inhibited concentration dependently and the coagulation time is prolonged. Aprotinin is an effective inhibitor of the contact (intrinsic) coagulation pathway in vitro[2].               |  |  |  |
| In vivo       | Aprotinin inhibits clot lysis in vitro as well as rat-tail bleeding time in vivo and prolongs coagulation time in human plasma. In a rat arteriovenous shunt model, aprotinin reduces thrombus weight [2].   |  |  |  |
| Kinase Assay  | Substrates and kinases are diluted in 50?mM Tris/HCl (pH?7.5), 0.1% 2-mercaptoethanol, 0.1?mM EGTA and 10?mM magnesium acetate. Reactions are initiated with [γ-32P]ATP (2500 c.p.m./pmol) to a final concentration of 0.1?mM and terminated after 15?min at 30°C by the addition of SDS and EDTA (pH?7.0) to final concentrations of 1.0% (w/v) and 20?mM respectively. After heating for 5?min at 100°C and separation by SDS/PAGE, the phosphorylated proteins are detected by autoradiography. |  |  |  |
| Cell Research | Mouse G8-1 myoblasts are plated DMEM + 20% FBS (maintenance medium), in which they remain undifferentiated. When cells reach approximately 40-50% confluence, different protease inhibitors are added to the culture media and cells are incubated overnight. Cells are then switched to differentiation-promoting media (DMEM + 10% horse serum ± protease inhibitor) and incubated for 7 days. (Only for Reference   |  |  |  |

## **Solubility Information**

| Solubility | H2O: 100 mg/mL (15.36 mM),Sonication is recommended.            |
|------------|---|
|            | (< 1 mg/ml refers to the product slightly soluble or insoluble) |

Page 1 of 2 www.targetmol.com

#### **Preparing Stock Solutions**

|       | 1mg       | 5mg       | 10mg      |
|-------|-----------|-----------|-----------|
| 1 mM  | 0.1536 mL | 0.7679 mL | 1.5357 mL |
| 5 mM  | 0.0307 mL | 0.1536 mL | 0.3071 mL |
| 10 mM | 0.0154 mL | 0.0768 mL | 0.1536 mL |
| 50 mM | 0.0031 mL | 0.0154 mL | 0.0307 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

#### Reference

Capasso C, et al. J Mol Recognit. 1997, 10(1):26-35. Jiang TY, Pan YF, Wan ZH, et al. PTEN status determines chemosensitivity to proteasome inhibition in

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Page 2 of 2 www.targetmol.com