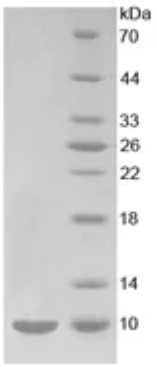
Active Aprotinin (AP)

Catalog#:PHV12571

概述（Summary）

别称（Alternative Names）	BPTI; Trasylol; Pancreatic Trypsin Inhibitor; Basic protease inhibitor
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Arg36-Ala93】
Accession #	P00974
表达宿主（Host）	293F
种属（Species）	Bos taurus; Bovine (Cattle)
预测分子量（Predicted MW）	8.1 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Inhibits trypsin, kallikrein, chymotrypsin, and plasmin.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

Calculation

$$\text{AP activity（U/mg）} = \frac{\frac{0.10 - A405/\text{min}}{0.10} \times 100\%}{50\%} / M$$

Where：

0.10 = trypsin activity of ΔA405nm/min
A405/min= inhibition of trpsin activity of AP
M=mass of enzyme

Aprotinin (AP) is a competitive serine protease inhibitor. Reversibly binds to and blocks the enzymatic active site. Inhibits a range of serine proteases including trypsin, chymotrypsin, kallikrein and plasmin. Inhibits cytopathogenic effect of SARS-CoV-2 and double-stranded RNA formation in SARS-CoV-2-infected cells. The activity of recombinant bovine AP was measured by its ability to inhibit trypsin cleavage of a peptide substrate BAPNA in the assay buffer 200 mM Triethanolamine hydrochloride, 20 mM CaCl2, pH 7.8. The reaction was performed in adding 20 µl 4 mg/mL trypsin diluted by 1mM HCl to 160 µl assay buffer and 20 ul 0.85% (w/v) NaCl and start the reaction by adding 100 µl of 1mg/ml BAPNA. Include a substrate blank containing 160 µl assay buffer, 20 µl 1mM HCl, 20 ul 0.85% (w/v) NaCl and 100 µL of 1mg/ml substrate. Rapidly mixing at 25 ℃, then read at 405 nm in kinetic mode for 5 minutes using a microplate reader controlling the ΔA405nm/min=0.08-0.12. The 20 ul different concentrations of recombinant bovine AP was incubated with 20 ul 4 mg/mL trypsin in 160 ul assay buffer at 25℃ for 10 minutes followed by adding 100 ul substrate, then read at 405 nm in kinetic mode for 5 minutes using a microplate reader. Under these conditions, the enzyme amount of 50% inhibition of trypsin activity per minute is defined as a unit. The specific activity of recombinant bovine AP is >3000 U/mg.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.