

Protease Inhibitor Cocktail, EDTA-free, mini tablets, 50 ml

Pack Variation & Catalogue Number

Product Number	Product Name	Specification
BL630A	Protease Inhibitor Cocktail (EDTA-Free, Mini Tablet, for 50 mL)	1 tablet

Product Description

After cell lysis, crude protein extracts contain large amounts of endogenous proteases, which can degrade target proteins in the extract. To prevent target proteins from being destroyed during purification, protease inhibitors must be added to suppress these protease activities. This Protease Inhibitor Cocktail consists of six different inhibitors, each capable of specifically inhibiting one or more protease activities. The optimized composition ensures effective inhibition of nearly all major protease classes, including serine proteases, cysteine proteases, aspartic proteases, and aminopeptidases. The mixture is suitable for protein extraction from mammalian cells and tissues. It can be directly added to any protein lysis buffer to effectively inhibit protease activity and increase the efficiency of target protein extraction. Ideal for use in Western blotting and immunoprecipitation. This formulation does not contain EDTA, ensuring no interference with metal-dependent proteins and compatibility with metal chelation chromatography.

Product Features

1. Convenience — Simply remove a quick-dissolving tablet from its package and add to the buffer solution.
2. Comprehensive protection — Protects proteins from degradation by a broad spectrum of proteases.
3. Versatility — Suitable for protein extraction from animal, plant, yeast, bacterial, or fungal tissues.
4. Safety — Non-toxic and risk-free inhibitor formulation.

Active Components

Protease Inhibitor	Target Protease
AEBSF	Irreversible serine protease inhibitor; inhibits trypsin, chymotrypsin, plasmin, thrombin, and kallikrein.
Aprotinin	Reversible serine protease inhibitor; inhibits plasmin, kallikrein, trypsin, and chymotrypsin.
Bestatin	Reversible aminopeptidase inhibitor.
E-64	Irreversible cysteine protease inhibitor; inhibits cysteine proteases without affecting other cysteine-containing enzymes.
Leupeptin	Reversible serine and cysteine protease inhibitor; inhibits trypsin-like proteases and certain cysteine proteases such as Lys-C endopeptidase, kallikrein, papain, thrombin, and cathepsin B.
Pepstatin A	Reversible aspartic protease inhibitor; inhibits pepsin, cathepsin B & L, and renin.

Instructions for Use

1. Add one tablet directly to 50 mL of lysis buffer.
2. Dissolve for 1 minute and mix thoroughly (Note: the solution may appear slightly cloudy after full dissolution; this is normal).

Notes / Precautions

1. This product provides broad-spectrum protease inhibition but does not inhibit phosphatases. For phosphorylation studies, use Phosphatase Inhibitor 100 $\times$ (Cat. No. BL615A).
2. Prolonged exposure of tablets at room temperature may cause discoloration.
3. One tablet prepares 50 mL of 1 $\times$ solution; for samples with high protease activity, increase concentration to 2 $\times$ or 3 $\times$.
4. Avoid contact with skin or mucous membranes.
5. For research use only. Not for clinical diagnosis, therapeutic, food, or drug use.
6. Always wear a lab coat and disposable gloves when handling.

Storage Conditions

Store at 4-8 °C for up to 24 months

For in vitro research use only. Not for diagnostic or therapeutic use. This product is not a medical device.