



**Cyrusbioscience**

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## Protease Inhibitor Cocktail I, For General Use

**Product No.:** 2040

### Introduction

Crude cell extracts contain numbers of endogenous enzymes, such as proteases and phosphatases, which are capable of quickly degrading the proteins of interest present in the extract. As a result, this biochemical process can drastically reduce the yield of any protein during any isolation step and endanger all further downstream experiments. The best way to improve the yield of intact proteins is to add inhibitors of these enzymes known to be present in the source material. All cells contain a different mixture of enzyme but the following generalizations can be made: Serine proteases are widely distributed in most type of cells / Bacterial extracts typically contain serine and metalloproteases / Extracts from animal tissues contain mainly serine, cysteine and metalloproteases. Some also contain aspartic proteases / Plant extracts contain large amounts of serine and cysteine proteases. Since cells contain different type of enzymes, our specially formulated cocktails of well selected, different inhibitors supplied in a ready-to-use form, will provide complete protection for your proteins of interest for subsequent experiments like Western blot, reporter gene analysis, immunoprecipitations, epitope tagging, specific protein activity assay or during further purification steps.

### Product Description

White Lyophilized Solid. A cocktail of five protease inhibitors which has been optimized for the inhibition of a broad range of protease and esterase.

### Recommended Usage

Reconstitute each vial with 1 ml H<sub>2</sub>O to obtain a 100X concentrated stock solution. 1X stock solution contains the following components:

Inhibitor	Concentration	Target Proteases
AEBSF, HCl	500 $\mu$ M	Serine Proteases
Aprotinin	150 nM	Serine Proteases and Esterases
E-64	1 $\mu$ M	Cysteine Proteases
EDTA	0.5 mM	Metalloproteases
Leupeptin	1 $\mu$ M	Cysteine Proteases and Trypsin-like Proteases

### Storage / Stability

Freezer (-20°C). Hygroscopic. Following reconstitution, aliquot and freeze (-20°C). Stock solutions are stable for up to 1 month at -20°C.