

## CERTIFICATE OF ANALYSIS

### Protease Inhibitor Cocktail III, Animal-Free, DMSO-Free

**P-1543** **Lyophilized Solid**  
**Lot# K1103B (Same as Mother Lot# K1103)**

**1 Vial**

Crude cell extracts contain a number 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 enzymes, 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 blotting, reporter gene analysis, immunoprecipitations, epitope tagging, specific protein activity assay, etc... or during further purification steps.

### Protease Inhibitor Cocktail III, Animal-Free, DMSO-Free

**Product Description:** White Lyophilized Solid. A specially formulated cocktail of six protease inhibitors with broad specificity for the inhibition of aspartic, cysteine and serine proteases as well as aminopeptidases.

**Recommended Usage:** Recommended for use with mammalian cell and tissue extracts. For applications that require Animal-Free reagents and where the use of DMSO is not recommended. One vial is recommended for the inhibition of proteases extracted from 20 g of tissue. When reconstituted to 1 ml, each vial will contain the following components:

Products	Cat. No.	Mol. Wt.	Concentration	Target Proteases
AEBSF, HCl	A-1018	239.5	100 mM	Serine Proteases
Aprotinin (Recombinant)		6512	80 µM	Broad Spectrum, Serine Proteases
Bestatin	B-1075	344.8	5 mM	Aminopeptidase B and Leucine Aminopeptidase
E-64	E-2030	357.4	1.5 mM	Cysteine Proteases
Leupeptin	L-1165	475.6	2 mM	Cysteine Proteases and Trypsin-like Proteases
Pepstatin A	P-1519	685.9	1 mM	Aspartic Proteases

**Solubility:** Soluble in DMSO, water, aqueous buffers or add directly to extraction media.

**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. **EXPIRES:** February 2022

**References:** Proteolytic Enzymes- A Practical Approach (Beynon, P. J. & Bond, J. S. eds) 1994, pp. 241-249.

### Try OTHER Ready-to-Use Protease and Phosphatase Inhibitor Cocktails

#### Features/Benefits

- Convenient- No need to prepare, ready to use formulations
- Flexibility- EDTA-Free, Animal-Free and DMSO-Free (Cocktail as a lyophilized solid instead of a solution in DMSO) formulations designed for your specific applications

- Wide Range- A great selection of specific cocktail formulations designed to inhibit proteolytic activity from most tissues or cell extracts, including mammalian, bacterial, yeast, fungal and plant cells

INHIBITOR COCKTAILS	Cat. No	Components	Recommended Applications
Protease Inhibitor Cocktail I	P-1510	AEBSF, Aprotinin, E-64, EDTA, Leupeptin	General Use
Protease Inhibitor Cocktail I, Animal-Free	P-1540	AEBSF, Aprotinin (Recombinant), E-64, EDTA, Leupeptin	General use and for applications that require animal-free reagents
Protease Inhibitor Cocktail II	P-1511	AEBSF, Bestatin, E-64, EDTA, Pepstatin A	Bacterial cell extracts
Protease Inhibitor Cocktail III	P-1512	AEBSF, Aprotinin, Bestatin, E-64, Leupeptin, Pepstatin A	Mammalian cells and tissue extracts
Protease Inhibitor Cocktail III, Animal-Free	P-1542	AEBSF, Aprotinin (Recombinant) Bestatin, E-64, Leupeptin, Pepstatin A	Mammalian cells and tissue extracts and for applications that require animal-free reagents
Protease Inhibitor Cocktail III, Animal-Free, DMSO-Free	P-1543	AEBSF, Aprotinin (Recombinant) Bestatin, E-64, Leupeptin, Pepstatin A	Mammalian cells and tissue extracts, for animal-free, organic solvent free applications
Protease Inhibitor Cocktail IV	P-1513	AEBSF, E-64, Pepstatin A, Phenanthroline	Fungal and yeast cell extracts
Protease Inhibitor Cocktail V, EDTA-Free	P-1514	AEBSF, Aprotinin, E-64, Leupeptin	Mammalian cells and tissue extracts, samples analyzed by 2-D gel electrophoresis
Protease Inhibitor Cocktail V, EDTA-Free, Animal-Free	P-1544	AEBSF, Aprotinin (Recombinant), E-64, Leupeptin	Mammalian cells and tissue extracts and for applications that require animal-free reagents
Protease Inhibitor Cocktail VI, General Use	P-1515	AEBSF, Aprotinin, Bestatin, E-64, EDTA, Leupeptin	General Use
Protease Inhibitor Cocktail VI, Plant Cells	P-1545	AEBSF, Bestatin, E-64, Leupeptin, Phenanthroline, Pepstatin A	Plant cell extracts
Protease Inhibitor Cocktail VII	P-1546	AEBSF, Bestatin, E-64, Pepstatin A, Phosphoramidon	Histidine-tagged proteins
Protease Inhibitor Cocktail VII, DMSO-Free	P-1547	AEBSF, Bestatin, E-64, Pepstatin A, Phosphoramidon	Histidine-tagged proteins and for organic solvent free applications
Protease Inhibitor Cocktail VIII	P-1548	ALLN, Antipain, E-64	Broad range cysteine protease inhibition
Serine Protease Inhibitor Cocktail I	P-1516	AEBSF, Aprotinin, Elastatinal, GGACK	Broad range serine protease inhibition
Phosphatase Inhibitor Cocktail I	P-1517	Bromotetramisole, Cantharidin, Microcystin LR	Animal tissues, A431 or Jurkat cell extracts
Phosphatase Inhibitor Cocktail II	P-1518	Imidazole, Na (Orthovanadate, Fluoride, Tartrate, Molybdate)	Animal tissues, A431 or Jurkat cell extracts
Phosphatase Inhibitor Cocktail III	P-1549	Na (Orthovanadate, Fluoride, Pyrophosphate) Glycerophosphate	Animal tissue extracts
Phosphatase Inhibitor Cocktail IV	P-1550	Bromotetramisole, Cantharidin, Calyculin A	Animal tissue extracts

## Related Products: Protein Solubilizers

Highly purified, Sterile, 10% aqueous solution of detergents. Aseptically manufactured **Sterile! No more mold growth in your aqueous detergents.**

<b>Aldehyde &amp; Peroxide Conc</b>	< 0.1 mM
<b>Conductivity</b>	< 5 uMhos
<b>Sterility</b>	USP Grade

Products	Cat. No.	Pkg. Size
Protein Solubilizer X-114, Sterile 10% <b>Triton X-114</b> Ampules	P-1496	10 X 5ml
Protein Solubilizer 80, Sterile 10% <b>Tween 80</b> Ampules	P-1498	10 X 5ml
Protein Solubilizer X-100, Sterile 10% <b>Triton X-100</b> Ampules	P-1500	10 X 5ml
Protein Solubilizer 20, Sterile 10% <b>Tween 20</b> Ampules	P-1502	10 X 5ml
Protein Solubilizer 35, Sterile 10% <b>Brij-35</b> Ampules	P-1504	10 X 5ml
Protein Solubilizer 40, Sterile 10% <b>NP-40</b> Ampules	P-1505	10 X 5ml
Protein Solubilizer Set-1, Sterile 10% ( <b>Tween 20, Tween 80, Triton X-100, NP-40 &amp; Brij-35</b> ) Ampules	P-1503	5 Sample Set @ 2 X 5 ml each

Country of Origin: USA