

## CERTIFICATE OF ANALYSIS

### Phosphatase Inhibitor Cocktail III

**P-1549**

Lyophilized Solid

**1 Vial**

**Lot# J1150**

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.

#### Phosphatase Inhibitor Cocktail III

**Product Description:** White Lyophilized Solid. A cocktail of four phosphatase inhibitors which has been optimized for the inhibition of both serine/threonine and protein tyrosine phosphatases

**Recommended Usage:** Recommended for use with tissue and cell extracts including extracts containing detergents. Reconstitute each vial with 1 ml H<sub>2</sub>O to obtain a 1 ml stock solution. Each vial contains the following components:

Products	Cat. No.	Mol. Wt.	Concentration	Target Phosphatases
Sodium Fluoride		42.0	250 mM	Acid Phosphatases
Sodium Orthovanadate		183.9	50 mM	Protein Tyrosine Phosphatase, Alkaline Phosphatase
Sodium Pyrophosphate		446.1	50 mM	PP1 and PP2A
β-Glycerophosphate		306.1	50 mM	Ser/Thr Phosphatases

**Solubility:** Soluble in 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:** May 2021

**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
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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.**

Aldehyde & Peroxide Conc	< 0.1 mM
Conductivity	< 5 uMhos
Sterility	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

Product Manufactured by:  
**BioProcessing Biochemicals, Inc.**  
California, USA.

Product Marketed by:  
**A.G. Scientific, Inc.**  
California, USA.