

Protease Inhibitor Cocktail, EDTA-Free

78415

1293.5

Number	Description
78415	Protease Inhibitor Cocktail, EDTA-Free , 1mL of 100X suspension, sufficient to treat 100mL of sample

Storage: Upon receipt store at 4°C. Product shipped at ambient temperature. Product is stable for one year at 4°C. When diluted to 1X in buffer, the protease inhibitors remain active for 1-2 weeks at 4°C and up to 12-15 weeks at -20°C.

Introduction

The Thermo Scientific Protease Inhibitor Cocktail provides complete protection of proteins from degradation by endogenous proteases that may be released during extraction and purification of proteins from animal and plant tissues, cultured cells, yeast or bacteria. The cocktail inhibits serine and cysteine proteases, calpain proteases, and metalloproteases. At a 1X concentration Protease Inhibitor Cocktail inhibits 95-98% of protease activity in biological extracts. The unique EDTA-Free formulation effectively inhibits most metalloprotease activity while allowing optimal action of nuclease activity for removing nucleic acids from samples. Furthermore, the EDTA-Free formulation is compatible with purification methods involving immobilized metal chelate affinity chromatography or analysis of extracts by 2D electrophoresis.

Important Product Information

- The Protease Inhibitor Cocktail is a broad-spectrum protease inhibitor only and does not contain phosphatase inhibitors. If necessary, use this cocktail in combination with a phosphatase inhibitor, such as the Thermo Scientific Halt Phosphatase Inhibitor Cocktail (Product No. 78420). Alternatively, use the combined Thermo Scientific Halt Protease and Phosphatase Inhibitor Cocktail EDTA-Free (Product No. 78441).
- The protease inhibitor cocktail is supplied as a 100X stock that is generally effective when used at a final concentration of 1X. However, some sample types contain particularly high levels of proteases, and optimization of the working concentration for the inhibitor cocktail may be required.
- Cell lysates may be produced by a variety of standard methods such as lysis reagents, sonication, French press or freeze/thaw. Protease Inhibitor Cocktail has been tested and validated for function with our cell lysis reagents (see Related Thermo Scientific Products Section).
- As an alternative to this Protease Inhibitor Cocktail, a full line of Halt™ Protease Inhibitor Cocktails are also available (see the Related Thermo Scientific Products Section). The Halt Protease Inhibitors do not need to be thawed before use and the formulation is fully disclosed.

Procedure

1. Equilibrate vial of Protease Inhibitor Cocktail to room temperature.
2. Briefly vortex the vial immediately before use to ensure a homogeneous suspension of the cocktail components.
3. Add Protease Inhibitor Cocktail at 10µL/mL directly to the cell lysis buffer or cell extract to produce a 1X final concentration. For a higher potency protease inhibition, the cocktail may be added to a 1.3X final concentration (e.g., 13µL/mL).

Troubleshooting

Problem	Possible Cause	Solution
Poor inhibition of protease activity	Improper solubilization and suspension of cocktail stock before dispensing	Equilibrate cocktail to room temperature and vortex immediately before use
	Sample contains high levels of proteases	Add cocktail at 1.3X (13µL/mL) final concentration
	Protein precipitation in sample	Decrease sample protein concentration and avoid repeated freeze-thaw cycles and improper storage conditions
	Product very old or was not stored properly	Purchase new Protease Inhibitor Cocktail Kit

Related Thermo Scientific Products

89900	RIPA Lysis and Extraction Buffer, 100mL
87787	Pierce® IP Lysis Buffer, 100mL
78431	AEBSF Protease Inhibitor, 100mg
78432	Aprotinin Protease Inhibitor, 25mg
78433	Bestatin Protease Inhibitor, 10mg
78434	E-64 Protease Inhibitor, 10mg
78435	Leupeptin Protease Inhibitor, 50mg
78436	Pepstatin A Protease Inhibitor, 25mg
78840	Subcellular Protein Fractionation Kit
78420	Halt Phosphatase Inhibitor Cocktail (100X), 1mL
87785	Halt Protease Inhibitor Cocktail, EDTA-Free (100X), 1mL
87786	Halt Protease Inhibitor Cocktail Kit, 1mL
78441	Halt Protease and Phosphatase Inhibitor Cocktail, EDTA-free (100X), 1mL
78248	B-PER® Bacterial Protein Extraction Reagent, Tris-based lysis reagent
78260	B-PER II Bacterial Protein Extraction Reagent, 2X concentrate of B-PER Reagent
78990	Y-PER® Yeast Protein Extraction Reagent
78501	M-PER® Mammalian Protein Extraction Reagent
78833	NE-PER® Nuclear and Cytoplasmic Extraction Reagents
78510	T-PER® Tissue Protein Extraction Reagent

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