# **INSTRUCTIONS**



2052.4

# Halt Protease Inhibitor Cocktail, EDTA-Free

# 87785 78437 78439

Number	Description
87785	Halt Protease Inhibitor Cocktail, EDTA-Free (100X), 1mL
78437	Halt Protease Inhibitor Cocktail, EDTA-Free (100X), 5mL, sufficient to treat 500mL of sample
78439	Halt Protease Inhibitor Cocktail, EDTA-Free (100X), 10mL, sufficient to treat 1L of sample

Storage: Upon receipt store at 4°C. Product shipped on ice pack.

#### Introduction

The Thermo Scientific<sup>TM</sup> Halt<sup>TM</sup> Protease Inhibitor Cocktail, EDTA-Free protects protein from degradation by endogenous proteases released during protein extraction and purification. This ready-to-use cocktail contains several potent inhibitors (Table 1) in DMSO against the major classes of proteases including aspartic acid, cysteine and serine.

<b>Table 1.</b> Protease inhibitors included in the cocktail.		
<b>Inhibitor</b>	1X Concentration	
AEBSF	1mM	
Aprotinin	800nM	
Bestatin	50µM	
E64	15μM	
Leupeptin	20μΜ	
Pepstatin A	10µM	

## **Important Product Information**

- Halt Protease Inhibitor Cocktail, EDTA-Free is a broad spectrum protease inhibitor and does not contain phosphatase inhibitors. Each protease inhibitor in the cocktail is listed in Table 1 at the 1X working concentration.
- This protease inhibitor cocktail is supplied at a 100X concentration in DMSO and is generally effective when used at a 1X final concentration; however, if a sample contains particularly high levels of proteases, the effective cocktail concentration might require optimization.
- This cocktail might freeze during storage, which does not affect its function or performance. If frozen, equilibrate the bottle to room temperature until the cocktail becomes a liquid.

## Procedure

Note: Wear proper personal protective equipment when working with this DMSO-containing protease inhibitor cocktail.

- 1. Equilibrate the bottle to room temperature.
- 2. Vortex the bottle to ensure a homogeneous suspension.
- 3. Immediately before use, add 10µL of Halt Protease Inhibitor Cocktail per milliliter of sample directly to the lysis buffer or extract to produce a 1X final concentration.



### Troubleshooting

Problem	Possible Cause	Solution
Poor inhibition of protease activity	Sample contains high levels of proteases	Add sufficient cocktail to produce a
		2X or 3X final concentration
Cocktail does not provide	Inhibitor for a specific family is not a	Add individual inhibitors to the
sufficient protection against a	component of the cocktail	samples for the specific protease
particular protease family	A specific inhibitor is not at the needed	Use the cocktail at a higher
	concentration	concentration

#### **Related Thermo Scientific Products**

78425	Halt Protease Inhibitor Single-Use Cocktail, EDTA-free (100X), $100\mu L \times 24$ microtubes
88661	Pierce <sup>TM</sup> Protease Inhibitor Tablets, EDTA-free, 30 tablets
88660	Pierce Protease Inhibitor Tablets, 30 tablets
78440	Halt Protease and Phosphatase Inhibitor Cocktail (100X), 1mL
78441	Halt Protease and Phosphatase Inhibitor Cocktail, EDTA-free (100X), 1mL
78444	Halt Protease and Phosphatase Inhibitor Cocktail (100X), $5 \times 1mL$
78445	Halt Protease and Phosphatase Inhibitor Cocktail (100X), EDTA-free, $5 \times 1 mL$
78428	Halt Phosphatase Inhibitor Single-Use Cocktail (100X), $100\mu L \times 24$ microtubes
88664	Pierce Protease and Phosphatase Inhibitor Tablets, EDTA-free, 20 tablets
66380	Slide-A-Lyzer <sup>TM</sup> Dialysis Cassettes 10K MWCO, 0.5-3 mL
89882	Zeba <sup>TM</sup> Spin Desalting Columns, 0.5mL, 25 columns
23225	Pierce BCA Protein Assay Kit
23236	Coomassie Plus (Bradford) Assay Kit
78248	B-PER™ Bacterial Protein Extraction Reagent, 500mL
78990	Y-PER <sup>TM</sup> Yeast Protein Extraction Reagent, 500mL
78833	NE-PER <sup>™</sup> Nuclear and Cytoplasmic Extraction Kit
78501	M-PER <sup>TM</sup> Mammalian Protein Extraction Reagent, 250mL

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