

Halt Protease Inhibitor Single-Use Cocktail EDTA-Free

78425

1988.4

Number	Description
78425	Halt Protease Inhibitor Single-Use Cocktail EDTA-Free (100X) , 100µL × 24 microtubes, sufficient to treat 240mL of sample

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

Introduction

The Thermo Scientific™ Halt™ Protease Inhibitor Single-Use Cocktail EDTA-Free protects proteins from degradation by endogenous proteases that may be released during protein extraction and purification. The ready-to-use cocktail contains several potent inhibitors (see Table 1) in DMSO that inhibit the major classes of proteases including aspartic acid, cysteine and serine proteases. The refrigerated, single-use format maintains the potency of inhibitors by eliminating freeze-thaw cycles. Also, each microtube conveniently contains 100µL that can treat up to 10mL of lysate.

Important Product Information

- Halt Protease Inhibitor Single-Use Cocktail is a broad-spectrum protease inhibitor and does not contain phosphatase inhibitors. The protease inhibitors used in the formulation at their 1X working concentrations are listed in Table 1.
- The protease inhibitor cocktail is supplied as a 100X stock in DMSO and 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 cocktail's working concentration may be required.
- This cocktail is typically a liquid at 4°C but occasionally might be frozen. Frozen product does affect the function or performance of the cocktail. If frozen, equilibrate the tube to room temperature or hold the tube between thumb and forefinger until the cocktail becomes a liquid.

Table 1. Protease inhibitors included in the Halt Cocktail.

<u>Inhibitor</u>	<u>1X</u>
AEBSF	1mM
Aprotinin	800nM
Bestatin	50µM
E64	15µM
Leupeptin	20µM
Pepstatin A	10µM

Procedure

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

1. Remove one strip of cocktail from the foil pouch. Use scissors to carefully cut off one tube from the strip. Return unused tubes to 4°C immediately after removing the required tubes. Do not allow unused cocktail to equilibrate to room temperature.

Note: To preserve the integrity of the foil seals, use scissors to cut the strip. Do not tear the tubes from the strip as this will compromise the seals of neighboring tubes.

2. Equilibrate the tube to room temperature.
3. Vortex the tube before use to ensure a homogeneous suspension. Puncture the foil seal with a pipette tip.
4. Add Halt Protease Inhibitor Single-Use Cocktail EDTA-Free, at 10µL/mL directly to the lysis buffer or cell extract to produce a 1X final concentration.

Note: Up to 10mL of lysis buffer or cell extract can be treated with one tube of cocktail.

Troubleshooting

Problem	Possible Cause	Solution
Poor inhibition of protease activity	Sample contains high levels of protease	Add sufficient cocktail to produce a 2X or 3X final concentration
Cocktail does not provide sufficient protection against a particular protease family	Inhibitor for that family is not a component of the cocktail, or the cocktail does not contain the needed concentration	Add individual inhibitor to the sample for the specific protease family

Related Thermo Scientific Products

78430	Halt Protease Inhibitor Single-Use Cocktail (100X), 24 × 100µL
87785	Halt Protease Inhibitor Cocktail, EDTA-Free (100X), 1mL
87786	Halt Protease Inhibitor Cocktail, 1mL
88660	Pierce Protease Inhibitor Tablets, 30 tablets
88661	Pierce Protease Inhibitor Tablets, EDTA-free, 30 tablets
78441	Halt Protease and Phosphatase Inhibitor Cocktail, EDTA-Free (100X), 1mL
88664	Pierce Protease and Phosphatase Inhibitor Tablets, EDTA-free, 20 tablets
78420	Halt Phosphatase Inhibitor Cocktail (100X), 1mL
88662	Pierce Phosphatase Inhibitor Tablets, 20 tablets

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