# **INSTRUCTIONS**



# Halt Phosphatase Inhibitor Single-Use Cocktail

78428

Number Description

78428 Halt Phosphatase Inhibitor Single-Use Cocktail (100X), 100μL × 24 microtubes, sufficient for

240mL 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> Phosphatase Inhibitor Single-Use Cocktail protects phosphoproteins from serine/threonine and tyrosine phosphatases. The cocktail contains a mixture of four inhibitors of broad specificity including sodium fluoride, sodium orthovanadate, sodium pyrophosphate and  $\beta$ -glycerophosphate. The cocktail is suitable for use with any cell or tissue extract. The cocktail is compatible with immunoprecipitation and kinase assays and with popular protein assays such as the Thermo Scientific Pierce BCA Protein Assay Kit (Product No. 23225) and Coomassie Plus (Bradford) Assay (Product No. 23236).

## **Important Product Information**

- This product contains phosphatase inhibitors and does not contain protease inhibitors. If protease inhibitors are required, add a broad-spectrum inhibitor (e.g., Halt Protease Inhibitor Single-Use Cocktail, Product No. 78425) to the cell lysis buffer.
- This phosphatase inhibitor cocktail interferes with immobilized metal-chelate affinity chromatography (IMAC) and 2-D
  gel electrophoresis. Either dialyze or desalt (see the Related Thermo Scientific Products Section) sample to effectively
  remove inhibitors from cell extracts before performing such procedures.
- The inhibitor cocktail is effective when used at a 1X final concentration; however, samples that contain particularly high levels of phosphatase activity might require a more concentrated treatment (i.e., 2-3X).
- This phosphatase inhibitor cocktail is compatible with our protein extraction reagents (see the Related Thermo Scientific Products Section).

## **Procedure for Phosphatase Inhibition**

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

- 1. Remove the block of cocktail microtubes from the foil pouch. Use scissors to carefully cut off one tube from the block. Return unused tubes to the pouch and place at 4°C immediately after removing the required tubes.
  - **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. Vortex the tube before use to ensure a homogeneous suspension. Puncture the foil seal with a pipette tip.
- 3. Immediately before use, add  $10\mu$ L of Halt Phosphatase Inhibitor Single-Use Cocktail per milliliter of sample directly to the cell lysis buffer or extract to produce a 1X final concentration.

**Note:** Samples that contain particularly high levels of phosphatase activity might require a more concentrated treatment (i.e., 2-3X).



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

78420	Halt Phosphatase Inhibitor Cocktail (100X), 1mL
78426	Halt Phosphatase Inhibitor Cocktail (100X), 5 × 1mL
78427	Halt Phosphatase Inhibitor Cocktail (100X), 10mL
88662	Pierce™ Phosphatase Inhibitor Tablets, 20 tablets
78440	Halt Protease and Phosphatase Inhibitor Cocktail (100X), 1mL
78444	Halt Protease and Phosphatase Inhibitor Cocktail (100X), $5 \times 1 mL$
78446	Halt Protease and Phosphatase Inhibitor Cocktail (100X), 10mL
88663	Pierce Protease and Phosphatase Inhibitor Tablets, 20 tablets
88664	Pierce Protease and Phosphatase Inhibitor Tablets, EDTA-free, 20 tablets
87786	Halt Protease Inhibitor Cocktail Kit, 1mL
78429	Halt Protease Inhibitor Cocktail (100X), 5mL
78438	Halt Protease Inhibitor Cocktail (100X), 10mL
87785	Halt Protease Inhibitor Cocktail, EDTA-free (100X), 1mL
78437	Halt Protease Inhibitor Cocktail, EDTA-free (100X), 5mL
78439	Halt Protease Inhibitor Cocktail, EDTA-free (100X), 10mL
78248	B-PER <sup>TM</sup> Bacterial Protein Extraction Reagent, 500mL
78990	Y-PER <sup>TM</sup> Yeast Protein Extraction Reagent, 500mL
78833	NE-PER™ Nuclear and Cytoplasmic Extraction Kit
78501	M-PER™ Mammalian Protein Extraction Reagent, 250mL
66380	Slide-A-Lyzer™ Dialysis Cassettes, 10K MWCO, 3mL, 10/pkg*
89889	Zeba <sup>TM</sup> Spin Desalting Columns, 7K MWCO, 2mL, 5/pkg
89890	Zeba Spin Desalting Columns, 7K MWCO, 2mL, 25/pkg
89891	Zeba Spin Desalting Columns, 7K MWCO, 5mL, 5/pkg
89892	Zeba Spin Desalting Columns, 7K MWCO, 5mL, 25/pkg
89893	Zeba Spin Desalting Columns, 7K MWCO, 10mL, 5/pkg
89894	Zeba Spin Desalting Columns, 7K MWCO, 10mL, 25/pkg

<sup>\*</sup>Please see the catalog or website for a complete list of Slide-A-Lyzer Products.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS.

Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to humans or animals.

Current product instructions are available at <a href="www.thermoscientific.com/pierce">www.thermoscientific.com/pierce</a>. For a faxed copy, call 800-874-3723 or contact your local distributor. © 2014 Thermo Fisher Scientific Inc. All rights reserved. Unless otherwise indicated, all trademarks are property of Thermo Fisher Scientific Inc. and its subsidiaries. Printed in the USA.