## **INSTRUCTIONS**



# Pierce Protease Inhibitor Mini Tablets

88665 88666

Number Description

**88665** Pierce Protease Inhibitor Mini Tablets, 30 tablets in vials, each tablet is sufficient for 10mL of

extract

**88666** Pierce Protease Inhibitor Mini Tablets, EDTA-free, 30 tablets in vials, each tablet is sufficient for

10mL of extract

**Storage:** Upon receipt store at  $\leq 4$  °C. Product shipped at ambient temperature. **Note:** Tablets may discolor if stored for extended periods at room temperature.

#### Introduction

The Thermo Scientific<sup>TM</sup> Pierce<sup>TM</sup> Protease Inhibitor Mini Tablets protect proteins from degradation by endogenous proteases released during protein extraction and purification procedures. Each tablet contains potent inhibitors (Table 1) against the major classes of proteases, including aspartic acid, cysteine proteases, serine proteases and, when EDTA is included, metalloproteinases.

**Table 1. Protease inhibitors contained in tablets.** EDTA is present only in Product No. 88665.

AEBSF	Aprotinin	Bestatin	E64	EDTA	Leupeptin	Pepstatin A
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#### **Important Product Information**

- Pierce Protease Inhibitor Mini Tablets contain broad-spectrum protease inhibitors and no phosphatase inhibitors.
- EDTA inhibits metalloproteases and activities of various other proteins; therefore, empirically determine if EDTA is beneficial.
- EDTA interferes with immobilized metal-chelate affinity chromatography (IMAC) and 2D gel electrophoresis. If needed, remove EDTA by extensive dialysis or desalting before performing such procedures.
- Each Pierce Protease Inhibitor Mini Tablet can prepare 10mL of 1X solution; however, samples containing particularly high levels of proteases might require a final concentration of 2-3X.
- Protein assay compatibility: Tablets are compatible with the Thermo Scientific Coomassie Plus (Bradford) Assay Kit (Product No. 23236) and the Pierce 660nm Protein Assay Kit (Product No. 22662). Samples must be diluted 4-fold (1 part sample: 3 parts diluent) to be compatible with Pierce BCA Protein Assay Kit (Product No. 23225). Samples containing protease are not compatible with Pierce Micro BCA Protein Assay Kit (Product No. 23235).

## **Procedure for using Pierce Protease Inhibitor Mini Tablet**

- 1. Dispense from vial and place into 10mL of solution.
- 2. Allow tablet to disperse in liquid for thirty seconds.
- Vortex to dissolve.

**Note:** Solution may be slightly hazy when tablet is dissolved.



### **Troubleshooting**

Problem	Possible Cause	Solution
Poor inhibition of protease activity	Sample contains high levels of proteases	Dissolve the tablet at a greater concentration
Tablet does not provide sufficient protection against a particular protease family	Inhibitor for a specific family was not a component of the cocktail	Add individual inhibitors to the samples for the specific protease
protease ranning	A specific inhibitor was not at the needed concentration	Dissolve the tablet at a greater concentration

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

88667	Pierce Phosphatase Inhibitor Mini Tablets, 20 tablets in vials
88668	Pierce Protease and Phosphatase Inhibitor Mini Tablets, 20 tablets in vials
88669	Pierce Protease and Phosphatase Inhibitor Mini Tablets, EDTA-free, 20 tablets in vials
87785	Halt™ Protease Inhibitor Cocktail, EDTA-free (100X), 1mL
87786	Halt Protease Inhibitor Cocktail (100X), 1mL
78248	B-PER <sup>TM</sup> Bacterial Protein Extraction Reagent, 500mL
78510	T-PER <sup>TM</sup> Tissue Protein Extraction Reagent, 500mL
78990	Y-PER <sup>TM</sup> Yeast Protein Extraction Reagent, 500mL
89826	Mem-PER <sup>TM</sup> Membrane Protein Extraction Reagent Kit
78833	NE-PER <sup>TM</sup> Nuclear and Cytoplasmic Extraction Kit
78501	M-PER <sup>TM</sup> Mammalian Protein Extraction Reagent, 250mL
87792	N-PER <sup>TM</sup> Neuronal Protein Extraction Reagent, 100mL
87793	Syn-PER™ Synaptic Protein Extraction Reagent, 100mL

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