

# Pierce Protease Inhibitor Tablets

**88265 88266**

2497.2

Number	Description
88265	<b>Pierce Protease Inhibitor Tablets</b> , 20 tablets in vials, each tablet is sufficient for 50mL of extract
88266	<b>Pierce Protease Inhibitor Tablets, EDTA-free</b> , 20 tablets in vials, each tablet is sufficient for 50mL of extract
	<b>Storage:</b> Upon receipt store at 4°C. Product shipped at ambient temperature.
	<b>Note:</b> Tablets may discolor if stored for extended periods at room temperature. The color change does not affect inhibitor activity.

## Introduction

The Thermo Scientific Pierce Protease Inhibitor 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. 88265.

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

- Pierce Protease Inhibitor 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 tablet can prepare 50mL of 1X solution; however, samples containing particularly high levels of proteases may 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 Tablet

1. Dispense tablet from vial and place into 50mL of solution.
2. Allow tablet to disperse in liquid for 30 seconds.
3. Vortex to dissolve.

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

## Troubleshooting

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

## Related Thermo Scientific Products

<b>88665</b>	<b>Pierce Protease Inhibitor Mini Tablets, 30 tablets in glass vials</b>
<b>88666</b>	<b>Pierce Protease Inhibitor Mini Tablets, EDTA-free, 30 tablets in glass vials</b>
<b>88667</b>	<b>Pierce Phosphatase Inhibitor Mini Tablets, 20 tablets in vials</b>
<b>88668</b>	<b>Pierce Protease and Phosphatase Inhibitor Mini Tablets, 20 tablets in vials</b>
<b>88669</b>	<b>Pierce Protease and Phosphatase Inhibitor Mini Tablets, EDTA-free, 20 tablets in vials</b>
<b>87785</b>	<b>Halt™ Protease Inhibitor Cocktail, EDTA-free (100X), 1mL</b>
<b>87786</b>	<b>Halt Protease Inhibitor Cocktail (100X), 1mL</b>
<b>78248</b>	<b>B-PER™ Bacterial Protein Extraction Reagent, 500mL</b>
<b>78510</b>	<b>T-PER™ Tissue Protein Extraction Reagent, 500mL</b>
<b>78990</b>	<b>Y-PER™ Yeast Protein Extraction Reagent, 500mL</b>
<b>78833</b>	<b>NE-PER™ Nuclear and Cytoplasmic Extraction Kit</b>
<b>78501</b>	<b>M-PER™ Mammalian Protein Extraction Reagent, 250mL</b>
<b>87792</b>	<b>N-PER™ Neuronal Protein Extraction Reagent, 100mL</b>
<b>87793</b>	<b>Syn-PER™ Synaptic Protein Extraction Reagent, 100mL</b>
<b>78840</b>	<b>Subcellular Protein Fractionation Kit for Cultured Cells</b>
<b>87790</b>	<b>Protein Subcellular Fractionation Kit for Tissues</b>

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