

Pierce™ Protease Inhibitor Tablets

Catalog Numbers A32963, A32965, A32953, and A32955

Doc. Part No. 2162614 Pub. No. MAN0016069 Rev. B.0

 **WARNING!** Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from thermofisher.com/support.

Product description

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, metalloproteases.

Table 1 Protease inhibitors included in the tablets.

Inhibitor	Target Protease/Phosphatase
Aprotinin	Serine proteases
Bestatin	Aminopeptidases
E-64	Cysteine proteases
Leupeptin	Serine and cysteine proteases
AEBSF	Serine proteases
Pepstatin A	Aspartic acid proteases
EDTA*	Metalloproteases

* EDTA is present only in Product No. A32953 and A32963.

Contents

Cat. No.	Product	Contents	Storage
A32963	Pierce™ Protease Inhibitor Tablets	20 tablets - each tablet sufficient for 50 mL of extract (Replaces Pierce Protease Inhibitor Tablets (Product No. 88265))	Store at 4°C.
A32965	Pierce™ Protease Inhibitor Tablets, EDTA-free	20 tablets - each tablet sufficient for 50 mL of extract (Replaces Pierce Protease Inhibitor Tablets, EDTA-free (Product No. 88266))	
A32953	Pierce™ Protease Inhibitor Mini Tablets	30 tablets - each tablet sufficient for 10 mL of extract (Replaces Pierce Protease Inhibitor Mini Tablets (Product No. 88665))	
A32955	Pierce™ Protease Inhibitor Mini Tablets, EDTA-free	30 tablets - each tablet sufficient for 10 mL of extract (Replaces Pierce Protease Inhibitor Mini Tablets, EDTA-free (Product No. 88666))	

Additional information

- EDTA inhibits metalloproteases by chelating divalent cations necessary for their activity. By this same mechanism, EDTA can affect the activities of other proteins and also interferes with immobilized metal-chelate affinity chromatography (IMAC) and 2D gel electrophoresis. Empirically determine if EDTA is beneficial.
- Tablets are compatible with common protein assays and Thermo Scientific™ Pierce™ Cell Lysis Reagents.

Use inhibitor tablet

- Dispense tablet from vial and place into 10 mL of solution (Product No. A32953 and A32955) or 50mL of solution (Product No. A32963 and A32965).
- Vortex to dissolve.

Troubleshooting

Observation	Possible cause	Recommended action
Poor inhibition of protease activity.	Sample contained high protease levels.	Dissolve tablet to 2-3X final concentration. Note: Solution may be slightly hazy.
Tablet not protecting against a protease family.	Inhibitor for a specific family was not a cocktail component.	Add individual inhibitors for the specific protease.
	A specific inhibitor was not at the required concentration.	Dissolve tablet to 2-3X final concentration. Note: Solution may be slightly hazy.

Limited product warranty

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Manufacturer: Pierce Biotechnology, Inc. | Thermo Fisher Scientific | 3747 N. Meridian Road | Rockford, Illinois 61101 USA

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Revision history: Pub. No. MAN0016069

Revision	Date	Description
B.0	21 July 2017	Correct table in Product Description
A.0	08 August 2016	New manual

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