

ZOOM® Equilibration Tray

Catalog. no. ZM0007

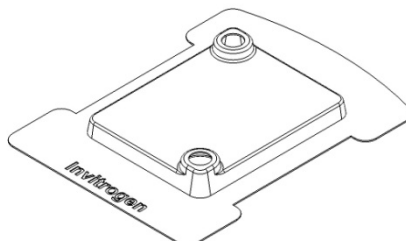
Pub. Part no. ZM0007.pps

MAN0001544

Rev. Date 31 January 2012

Description

The ZOOM® Equilibration Trays (see figure below) are convenient, disposable trays designed for use with ZOOM® IPGRunner™ Cassettes to perform equilibration of ZOOM® Strips after first dimension isoelectric focusing (IEF) and prior to second dimension SDS-PAGE.



The ZOOM® Equilibration Tray contains an adhesive on the inner side. After removing the adhesive liner from the tray and placing the tray on a dry surface of the ZOOM® IPGRunner™ Cassette, the adhesive creates a tight seal between the tray and ZOOM® IPGRunner™ Cassette and holds each ZOOM® Strip in the individual channels of the cassette. The ZOOM® IPGRunner™ Cassette/ ZOOM® Equilibration Tray assembly provides maximum equilibration of strips by holding the gel side of the strip towards the equilibration buffer. The assembly also minimizes handling of strips and eliminates transfer of strips to different containers, thus preventing any damage to the strips or sample contamination. Each tray is designed with two spouts to facilitate addition and removal of equilibration buffer.

Types of Products

This manual is supplied with the following products.

Product	Quantity	Cat. no.
ZOOM® Equilibration Tray	10 trays	ZM0007
ZOOM® IPGRunner™ Cassettes and Trays	10 ZOOM® Equilibration Trays 10 ZOOM® IPGRunner™ Cassettes	ZM0008

Specifications

The specifications for the ZOOM® Equilibration Tray are listed below:

Size:	12 cm × 9 cm
Thickness:	0.5 mm
Volume:	5–15 mL
Tray Material:	PETG (Polyester Terephthalate Glycol)

The ZOOM® Equilibration Tray is compatible with commonly used solutions used for equilibration, reduction, and alkylation.

Advantages

Using ZOOM® Equilibration Trays to perform equilibration offers the following advantages:

- Creates a tight seal and holds strips in the individual channels of the cassette in the proper orientation ensuring optimal equilibration of strips
- Unique, user-friendly design for easy set-up, and addition and removal of equilibration buffer
- Minimizes handling of strips thereby preventing any damage to strips or sample contamination

Using ZOOM® Equilibration Tray

Introduction

After completing IEF, equilibrate ZOOM® Strips in the ZOOM® IPGRunner™ Cassette and ZOOM® Equilibration Tray. Equilibrating ZOOM® Strips in the NuPAGE® LDS Sample Buffer prepares the strips for 2D SDS-PAGE. We recommend performing a second, optional alkylation step using iodoacetamide to obtain the best results.

For details on using the ZOOM® IPGRunner™ Mini-Cell, refer to the ZOOM® IPGRunner™ System Manual. This manual is available for downloading from www.lifetechnologies.com/manuals or contact Technical Support.

Materials Needed

You will need the following items. Ordering information is on page 3.

- ZOOM® Strips in a ZOOM® IPGRunner™ Cassette after IEF
- NuPAGE® LDS Sample Buffer (4X)
- NuPAGE® Sample Reducing Agent (10X)
- Iodoacetamide
- Rotary shaker (optional)

Preparing Buffers

We recommend using the NuPAGE® LDS Sample Buffer with NuPAGE® Novex 4-12% Bis-Tris ZOOM® Gel or Novex® 4-20% Tris-Glycine ZOOM® Gel. **You will need 5–15 mL buffer per equilibration tray.**

For equilibration

1. Dilute 4X NuPAGE® LDS Sample Buffer to 1X with deionized water.
2. Add 1.0 mL NuPAGE® Sample Reducing Agent (10X) to 9.0 mL 1X NuPAGE® LDS Sample Buffer from Step 1 in a 15-mL conical tube.

For alkylation

Prepare 125 mM Alkylating Solution by dissolving 232 mg of fresh iodoacetamide in 10 mL of 1X NuPAGE® LDS Sample Buffer (from Step 1, above) in a 15-mL conical tube.

Attaching ZOOM® Equilibration Tray

1. After IEF, remove the ZOOM® IPGRunner™ Cassette from the ZOOM® IPGRunner™ Mini-Cell.
2. **Blot any excess liquid from the cassette using a paper towel and ensure your hands are dry.**
3. Firmly hold the ZOOM® IPGRunner™ Cassette and peel off the Film Cover from the cassette with your dry hands. Avoid introducing any liquid on the cassette surface.

Note: You may equilibrate less than 6 strips using the tray. Remove the desired quantity of strips from the cassette and store the strips in a sealed container at -80°C . When you are ready to equilibrate, place the strips in a cassette and proceed to equilibration as described below.

4. Remove one ZOOM® Equilibration Tray from the package and pull on the adhesive liner tab to remove the liner.
5. Hold the ZOOM® Equilibration Tray (adhesive side down) and align the tray between the two ribs (protrusions) of the cassette such that the logo is towards the flat end of the cassette (figure A). **Place the tray on the cassette and apply firm pressure to the tray on the adhesive area with the blunt end of a pen to ensure a tight seal between the tray and cassette (figure B).** A tight seal is formed when the adhesive changes from a cloudy to clear appearance.

Figure A

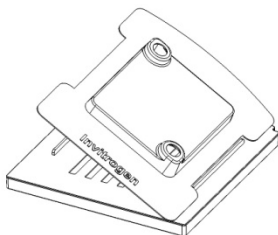
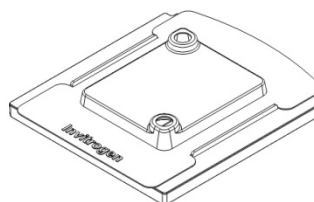


Figure B



Using ZOOM® Equilibration Tray

Important

- It is important to create a tight seal between the ZOOM® Equilibration Tray and ZOOM® IPGRunner™ Cassette to prevent leaks. To obtain a tight seal, we recommend pressing the tray firmly on the cassette using the blunt end of a pen. A tight seal is formed when the adhesive changes from a cloudy to clear appearance.
- To ensure a tight seal, avoid introducing any liquid in the cassette area where the ZOOM® Equilibration Tray will be placed. If necessary, remove any remaining large pieces of adhesive after removing the Film Cover from the ZOOM® IPGRunner™ Cassette.

Performing Equilibration

1. Add 5–15 mL 1X NuPAGE® LDS Sample Buffer with reducing agent (Step 2, **Preparing Buffers**, previous page) through either spout on the tray. Incubate for 15 minutes on a rotary shaker or benchtop.

If you notice any leaks, see the **Note** below.

2. Decant buffer into a waste container using the spouts on the tray.
3. Add 5–15 mL Alkylating Solution (**Preparing Buffers**, previous page) through either spout on the tray. Incubate for 15 minutes on a rotary shaker or benchtop.
4. Decant buffer into a waste container using the spouts on the tray. Shake out any residual buffer.
5. Remove the ZOOM® Equilibration Tray from the cassette by first pulling on the corners of the tray and then firmly remove the tray. If desired, you may use a gel knife.
6. Remove the equilibrated ZOOM® Strips from the cassette using forceps and immediately proceed to second dimension SDS-PAGE (refer to the ZOOM® IPGRunner™ System manual).

Note

The ZOOM® Equilibration Tray is designed to create a tight seal and hold 5–15 mL buffer when placed on a dry ZOOM® IPGRunner™ Cassette. Occasionally some buffer may leak into the adhesive area (indicated by blue color in the adhesive area).

Leaks are generally caused due to the reasons described below. When leaks occur, it is best to remove the tray and discard it. Dry the cassette with a paper towel and place a fresh new tray on the dried surface of the cassette.

- **Improper seal**
Improper seal is caused when the tray is not firmly pressed onto the cassette or the surface of the cassette was wet when the tray was applied. **To obtain a tight seal, press the tray firmly on the cassette using the blunt end of a pen.** A tight seal is formed when the adhesive changes from a cloudy to clear appearance.
- **Excess solution**
The ZOOM® Equilibration Tray is designed to hold ~15 mL buffer. Adding excess buffer will generate spills.

Accessory Products

The following products are available separately. For more details on these products, visit www.lifetechnologies.com or contact Technical Support.

Product	Quantity	Cat. no.
ZOOM® IPGRunner™ Cassettes	10 cassettes	ZM0003
ZOOM® IPGRunner™ Mini-Cell	1 kit	ZM0001
NuPAGE® LDS Sample Buffer (4X)	250 mL	NP0008
NuPAGE® Sample Reducing Agent (10X)	10 mL	NP0009
ZOOM® Strip pH 3–10NL (non-linear)	12 strips	ZM0011
ZOOM® Strip pH 4–7	12 strips	ZM0012
ZOOM® Strip pH 6–10	12 strips	ZM0013
ZOOM® Strip pH 4.5–5.5	12 strips	ZM0014
ZOOM® Strip pH 5.3–6.3	12 strips	ZM0015
ZOOM® Strip pH 6.1–7.1	12 strips	ZM0016

Purchaser Notification

Limited Use Label License: Research Use Only

The purchase of this product conveys to the purchaser the limited, non-transferable right to use the purchased amount of the product only to perform internal research for the sole benefit of the purchaser. No right to resell this product or any of its components is conveyed expressly, by implication, or by estoppel. This product is for internal research purposes only and is not for use in commercial applications of any kind, including, without limitation, quality control and commercial services such as reporting the results of purchaser's activities for a fee or other form of consideration. For information on obtaining additional rights, contact outlicensing@lifetech.com or Out Licensing, Life Technologies, 5791 Van Allen Way, Carlsbad, California 92008.

Limited Warranty

Life Technologies Corporation is committed to providing our customers with high-quality goods and services. Our goal is to ensure that every customer is 100% satisfied with our products and our service. If you should have any questions or concerns about a Life Technologies product or service, contact our Technical Support Representatives.

All Life Technologies products are warranted to perform according to specifications stated on the certificate of analysis. The Company will replace, free of charge, any product that does not meet those specifications. This warranty limits the Company's liability to only the price of the product. No warranty is granted for products beyond their listed expiration date. No warranty is applicable unless all product components are stored in accordance with instructions. The Company reserves the right to select the method(s) used to analyze a product unless the Company agrees to a specified method in writing prior to acceptance of the order.

Life Technologies makes every effort to ensure the accuracy of its publications, but realizes that the occasional typographical or other error is inevitable. Therefore the Company makes no warranty of any kind regarding the contents of any publications or documentation. If you discover an error in any of our publications, report it to our Technical Support Representatives.

Life Technologies Corporation shall have no responsibility or liability for any special, incidental, indirect or consequential loss or damage whatsoever. The above limited warranty is sole and exclusive. No other warranty is made, whether expressed or implied, including any warranty of merchantability or fitness for a particular purpose.

©2012 Life Technologies Corporation. All rights reserved.

The trademarks mentioned herein are the property of Life Technologies Corporation or their representative owners.

For support visit www.lifetechnologies.com/support or contact techsupport@lifetech.com.

www.lifetechnologies.com

