

ZOOM® IPGRunner™ Cassette

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Description

The ZOOM® IPGRunner™ Cassette provides a convenient way to rehydrate 7.0-cm ZOOM® Strips and perform isoelectric focusing of up to six 7.0-cm ZOOM® Strips (IPG strips) without requiring separate units for rehydration and isoelectric focusing.

The ZOOM® IPGRunner™ Cassette can only be used with the ZOOM® IPGRunner™ Mini-Cell (see **Additional Products** on page 4).

Contents

The ZOOM® IPGRunner™ Cassette box contains the following items:

Item	Quantity
ZOOM® IPGRunner™ Cassettes	10
Sealing Tape	22
Electrode Wicks	22

Specifications

Cassette: 10 cm × 10 cm

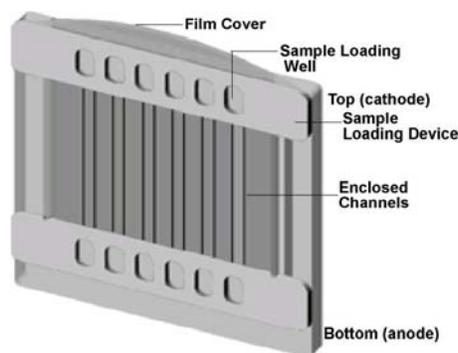
Thickness: 6.9-mm

Enclosed Channel: Designed to accommodate 7-cm IPG strips

Cassette Material: Polycarbonate, Polyester, Low Density Polyethylene (LDPE)

ZOOM® IPGRunner™ Cassette

The ZOOM® IPGRunner™ Cassette contains 6 Enclosed Channels that receive 7.0-cm ZOOM® Strip and function as rehydration and running chambers for the strips. Each Enclosed Channel holds rehydration buffer and sample for rehydrating the ZOOM® Strip. There are 2 Sample Loading Devices attached to the top (cathode) and bottom (anode) end of the ZOOM® IPGRunner™ Cassette. The Sample Loading Wells in the Sample Loading Device are designed for sample application and to prevent any sample overflow into adjacent channels during loading and rehydration.



Introduction

Instructions are provided for rehydrating your 7.0-cm ZOOM® Strips in Sample Rehydration Buffer using the ZOOM® IPGRunner™ Cassette. For isoelectric focusing of the IPG strips using the ZOOM® IPGRunner™ Mini-Cell, refer to the ZOOM® IPGRunner™ System Manual, which is available from www.lifetechnologies.com/manuals or by contacting Technical Support.

Materials Needed

You will need the following items. Ordering information is on page 4.

- Protein sample for IEF
- Sample Rehydration Buffer (see page 3 for a recipe)
- ZOOM® IPGRunner™ Mini-Cell
- ZOOM® Strips

Rehydrating IPG Strips

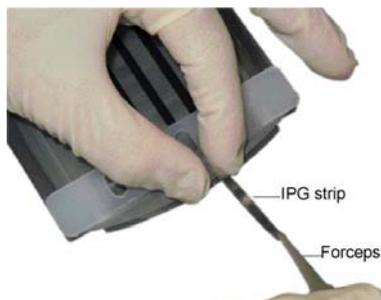
1. Prepare your protein sample at a suitable concentration using appropriate sample rehydration buffer (see the ZOOM® IPGRunner™ System Manual for guidelines for preparing your sample). Prepare your protein sample in a final volume of 155 μ L. A recipe for denaturing Sample Rehydration Buffer is on page 3.
2. Remove the ZOOM® IPGRunner™ Cassette from the box.
3. Set the ZOOM® IPGRunner™ Cassette on a level surface with the Sample Loading Wells facing upwards.
4. Load 155 μ L of the Sample Rehydration Buffer containing the protein sample into the Sample Loading Wells located at the rounded edge of the ZOOM® IPGRunner™ Cassette (see the following figure).



Note: You do not need to fill the remaining wells with sample buffer if you are not using all sample wells. You may run 1–6 IPG strips per ZOOM® IPGRunner™ Cassette. Leave unused wells empty.

5. Remove the ZOOM® Strip card from its pouch and peel a strip away from the card backing using forceps. The protective strip cover will remain on the card.
6. Each strip has a gel side and a side with printed markings on it. Hold the ZOOM® Strip at the basic end (-) using forceps with the printed-side facing *down* (i.e., gel side up). Using your fingers to guide the strip, gently slide the acidic end (+) of the strip into the sample well at the curved end of the ZOOM® IPGRunner™ Cassette until the acidic end (+) of the strip touches the end of the channel slot (see the following figure).

Avoid introducing large air bubbles while sliding the ZOOM® Strip into a sample well. To remove large bubbles, slide the strip gently back past the bubble, and then back in. Small bubbles will not affect rehydration.



7. Repeat Steps 5 and 6 for the remaining wells containing sample.
8. Seal all of the Sample Loading Wells (including the unused wells) with the Sealing Tape provided in the kit. Make sure that the tape fully seals all wells. Smooth the tape down with a tube or a pipette to create a sealed environment for rehydration.

The unique design of the ZOOM® IPGRunner™ Cassette allows oil-free rehydration of ZOOM® Strips.

9. Incubate the ZOOM® IPGRunner™ Cassette with ZOOM® Strips for 8–16 hours at room temperature for rehydration. The next day, proceed to Assembling the ZOOM® IPGRunner™ for Focusing (refer to the ZOOM® IPGRunner™ System Manual).

Sample Rehydration Buffer (1X)

8 M Urea

2% CHAPS

0.5% (v/v) ZOOM® Carrier Ampholytes (see the following **Note**)

0.002% Bromophenol Blue

1. To prepare 25 mL of 1X Sample Rehydration Buffer, add the following reagents to 15 mL of deionized water

Urea	12 g
CHAPS	0.5 g
Ampholytes	125 µL (see the following Note)
Bromophenol Blue	0.5 mL of a 0.1% solution

2. Bring the volume up to 25 mL. Aliquot the buffer into 1 mL aliquots and store at -20°C .

Prior to using this buffer, add dithiothreitol (DTT) to a final concentration of 20 mM.

Note: Use the appropriate ZOOM® Carrier Ampholytes based on the ZOOM® Strip as described in the following table.

ZOOM® Strip	ZOOM® Carrier Ampholytes
pH 3–10	use 125 µL pH 3–10 ampholytes
pH 4–7	use 125 µL pH 4–7 ampholytes
pH 6–10	use 63 µL pH 6–9 and 63 µL pH 9–11 ampholytes
pH 4.5–5.5	use 125 µL of pH 4–6 ampholytes
pH 5.3–6.3	use 125 µL of pH 5–7 ampholytes
pH 6.1–7.1	use 125 µL of pH 6–8 ampholytes

Additional Products

The following products are for use with the ZOOM® IPGRunner™ Cassette. For more information on these products, contact Technical Support.

Product	Quantity	Cat. no.
ZOOM® IPGRunner™ Mini-Cell	1 unit	ZM0001
ZOOM® IPGRunner™ Starter Kit	1 kit	ZM0002
ZOOM® Strips pH 3–10NL	12 strips	ZM0011
ZOOM® Strips pH 4–7	12 strips	ZM0012
ZOOM® Strips pH 6–10	12 strips	ZM0013
ZOOM® Strips pH 4.5–5.5	12 strips	ZM0014
ZOOM® Strips pH 5.3–6.3	12 strips	ZM0015
ZOOM® Strips pH 6.1–7.1	12 strips	ZM0016
ZOOM® Carrier Ampholytes pH 3–10	10 mL	ZM0021
ZOOM® Carrier Ampholytes pH 4–7	10 mL	ZM0022
ZOOM® Carrier Ampholytes pH 6–9	10 mL	ZM0023
ZOOM® Carrier Ampholytes pH 9–11	10 mL	ZM0024
ZOOM® Carrier Ampholytes pH 4–6	10 mL	ZM0025

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