

OPERATOR'S MANUAL

IMMUNOBLOTTER

HORIZONTAL BLOTTING/WASHING UNIT

CHAMBER SIZE: 9CM X 7.5CM



IBI Catalog Number: **IB96000**



IBI SCIENTIFIC

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A. SAFETY INFORMATION

Important Safety Information!

- ◆ Please read this manual carefully before operating your new IBI Immunoblotter.
- ◆ This manual contains important operating and safety information.
- ◆ To best use the product, please read the entire manual carefully prior to use.
- ◆ To avoid possible injury, this product should only be used for its intended purpose.

B. PACKAGE CONTENTS

Upon receiving this product, please verify all of the noted parts and accessories are contained in this package.

IB96000

- ◆ Immunoblotter Unit w/Connecting Fittings Factory Installed
- ◆ 12” Drain Tube
- ◆ White Chamber Gasket
- ◆ Operation Manual

NOTE: Carefully inspect all items in the package to insure no items are broken or missing. If there are items broken, please inspect the package carefully for signs of shipping damage. If there is ANY sign of shipping damage, please contact the carrier and file a claim with them immediately. Contact the distributor from which you purchased the item or IBI Scientific for assistance at (800) 253-4942 or (563) 690-0484.

C. PRODUCT SPECIFICATIONS

	<u>Height</u>	<u>Width</u>	<u>Length</u>
Unit Dimensions	5.0cm	14.0cm	15.2cm
Chamber Dimensions		9.0cm	7.5cm
Chamber Volume:	Less than 4ml		

D. CLEANING AND CARE

Your *NEW* IBI Immunoblotter is cleaned and packaged at the factory however this device will require additional cleaning prior to use each time it is used. To clean, use warm or hot water along with a mild detergent to gently wipe all surfaces of the unit. When finished, rinse clean with DI water (including tubing) and allow to dry.

E. OPERATING PROCEDURE

Your *NEW* IBI Immunoblotter is an anti-body staining chamber for use with 8x10cm and 10x10cm post-western transfer membranes. The IB96000 has been designed to thoroughly minimize anti-body solution and buffer usage to help save your lab valuable dollars! The precision matched chamber and gasket are designed to hold the membrane in place while providing a sealed area for the injection of minimal amounts of blocking reagents, anti-body staining solution, and/or wash buffer. This will also provide considerable savings on reagents and expensive anti-body solution, by reducing the volume of solution required during usage. The IB96000 also eliminates the requirement of a rocking platform during incubation, thus saving valuable time in the lab! Solutions can be easily injected and recovered from the chamber by mating a syringe with the luer-lock fitting on the chamber. A pipette and large tip may also work to inject solutions for some applications, but a syringe is needed for recovery.

PROCEDURE

The IB96000 is intended for use post-western transfer.

- 1.) Visually inspect the size of your membrane to ensure it will fit into the IB96000. If necessary, trim unused portions of the membrane away to allow it to fit into the unit.

NOTE: The chamber size is 9cm X 7.5cm.

- 2.) Loosen the IB96000 thumb screw to access the chamber. Remove the screw and open the lid. *See Photo 1.*
- 3.) Carefully lay the membrane into the staining chamber with the proteins up. Take care to lay the membrane flat in the chamber without creating air bubbles beneath the membrane.
- 4.) Close the chamber lid and tighten the thumb screw finger tight. Place the drain tube into a small beaker or waste container to catch any excess solution that may escape during the procedure. *See Photo 2.*

NOTE: A large syringe with a luer-lock end works the best for this application; however, a pipette and large tip can also be used to inject the solution, but a syringe will be required for recovery.

- 5.) Fill a syringe with 3.5ml of blocking solution. Tap the inverted syringe and carefully push out any excess air in the syringe prior to attaching to the staining chamber. Attach the syringe to the luer fitting located near the front left corner of the unit. Inject blocking solution slowly and in one easy motion. IF air bubbles do form in the injection chamber, simply lift the back right corner of the unit and slowly inject a bit more blocking solution to push the air bubble out the rear fitting of the unit. *See Photos 3 & 4.*

NOTE: To reduce air bubbles inside the chamber during injection, it helps to slightly raise the back left corner of the unit to allow the air to escape a bit easier.

- 6.) Allow the membrane and blocking solution to incubate for approximately 1 hour or follow your standard protocol for incubation. The syringe may stay locked into place during incubation.



Photo 1



Photo 2

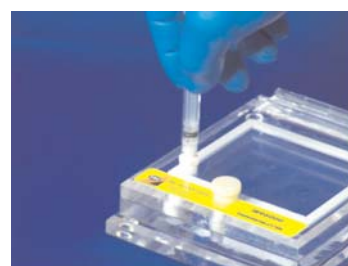


Photo 3



Photo 4

- 7.) After incubation, slowly raise the back right corner of the unit, thus tilting the chamber toward the front left fitting. Slowly draw the blocking solution from the staining chamber using the attached syringe, in reverse motion pulling the syringe plunger upward to remove fluid. This solution may be discarded.
- 8.) Develop 3.5ml of anti-body solution and repeat STEP 5. Allow the membrane and solution to incubate for approximately 1 hour or follow your standard protocol for incubation. *See Photos 5 & 6.*

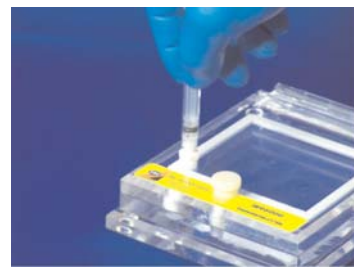


Photo 5

NOTE: If incubating over night, ensure to keep syringe locked into place and pinch off the drain tube to ensure solution does not escape while unattended.

- 9.) After incubation, slowly raise the back right corner of the unit, thus tilting the chamber toward the front left fitting. Slowly draw the anti-body solution from the staining chamber using the attached syringe, in reverse motion pull the syringe plunger upward to remove fluid. This solution may be discarded.
- 10.) Develop a wash buffer solution and fill a large syringe with the wash buffer. Remove any air in the syringe by inverting the syringe and pushing the air out of the top of the syringe. Ensure the drain tube is placed into a small beaker or waste container. *See Photos 7*
- 11.) Attach the large syringe, containing the wash buffer, to the luer-lock fitting and secure. Slowly push 3-4ml of wash buffer into the chamber. Allow to incubate for a desired amount of time prior to continuing. With the drain tube placed into a small beaker, simply push an additional 4ml of wash buffer from the syringe into the chamber, this will displace the existing buffer out of the chamber and into the beaker. Repeat this process as needed, 3 to 4 times is recommended. *See Photos 5 & 6.*
- 12.) Once you have injected the last of your wash buffer, and have allowed the membrane to incubate, remove the tubing from the small beaker or waste container. Using the connected syringe draw the remaining wash buffer from the chamber by, in reverse motion, pulling the syringe plunger upward thus removing the fluid. This solution may be discarded.
- 13.) A secondary anti-body can now be introduced to the chamber by following STEP 8-12.
- 14.) After rinsing the secondary anti-body, remove the membrane from the chamber and visualize as normal



Photo 6

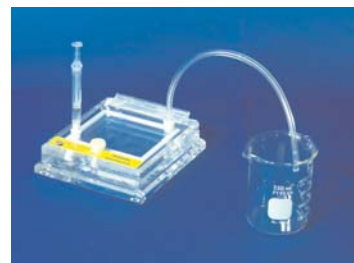


Photo 7

F. REPLACEMENT PARTS & ACCESSORIES

IB96000 ACCESSORY ITEMS AND REPLACEMENT PARTS:

<u>Catalog #</u>	<u>Description</u>
IB96010	Replacement Chamber Gasket
IB96020	Replacement Thumb Screw
IB96030	Replacement Drain Tube

G. LIMITED WARRANTY

Our limited warranty for all electrophoresis gel boxes is four (4) years to the original buyer only (non-transferable). Warranty does not apply to electrodes or platinum wires.

Our limited warranty as noted above extends to the direct end user of IBI Scientific products only. This warranty is in lieu of all other warranties whether expressed or implied, including warranties of merchantability or fitness for a particular purpose. In no situation shall IBI Scientific be liable for any incidental or consequential damages of any kind, even though IBI Scientific has been advised of the possibility of such damages arising out of, or resulting from, the products or the use or modification thereof or due to the breach of this warranty or any other obligation of IBI Scientific to the customer, whether based on contract, tort, or any other legal theory. In no such event shall IBI Scientific be liable for damages which exceed the purchase price of any products.

For further assistance please contact IBI Scientific Technical Service at (800) 253-4942, (563) 690-0484 or visit us on the web at www.ibisci.com.

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