Document Number: **SOSoM/EQUIP/033.v3**

Title: **Use and Maintenance of the BioRad Mini Trans-Blot Apparatus**

Version: **v3**

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SOP History		
Number	Date	Reason for Change
v1	01/01/2013	Original
V2	02/07/2013	Minor amendments
V3	02/07/2023	Update

1.0 Purpose –

The purpose of this SOP is to outline the principles of the routine use and maintenance of the Mini Trans-Blot in Laboratory 248 at the St Andrews School of Medicine (SASoM).

2.0 Scope –

This SOP applies to routine use and maintenance of the Mini Trans-Blot within the SASoM.

3.0 Responsibilities –

It is the responsibility of all users of the Mini Trans-Blot within the SASoM to comply with this SOP.

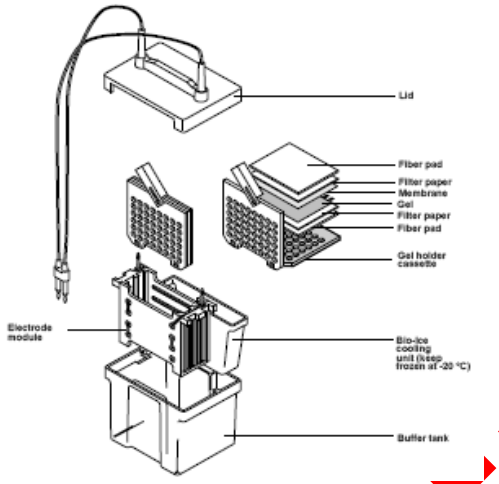
4.0 Procedure –

Prepare the transfer buffer.

Cut the membrane and the filter paper to the dimensions of the gel. Always wear gloves when handling membranes to prevent contamination.

If using a nitrocellulose membrane, soak the membrane in Methanol for 15 seconds before then hydrating in distilled water for a further 2 minutes.

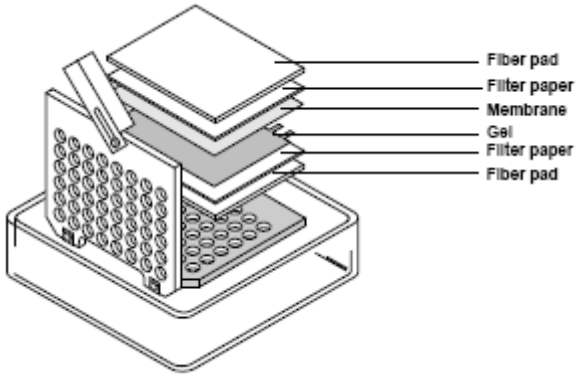
Equilibrate the gel and soak the membrane, filter paper, and fibre pads in transfer buffer



Prepare the gel sandwich.

Place the cassette, with the grey side down, on a clean surface.
Place one pre-wetted fibre pad on the grey side of the cassette.
Place a sheet of filter paper on the fibre pad.
Place the equilibrated gel on the filter paper.*
Place the pre-wetted membrane on the gel.*
Complete the sandwich by placing a piece of filter paper on the membrane.*
Add the last fibre pad.

* Removing any air bubbles which may have formed, this is very important for good transfer results. Use a glass tube to gently roll air bubbles out.



Close the cassette firmly, being careful not to move the gel and filter paper sandwich.
Lock the cassette closed with the white latch.
Place the cassette in module. Repeat for the other cassette.

Place in tank and completely fill the tank with transfer buffer.

Add a standard stir bar to help maintain even buffer temperature and ion distribution in the tank. Set the speed as fast as possible to keep ion distribution even.

Put on the lid, plug the cables into the power supply, and run the blot at 4ºC in the cold room

Upon completion of the run, disassemble the blotting sandwich and remove the membrane for development.

5.0 Personal protection -
Howie coat must be worn at all times.

Gloves as specified in the appropriate COSHH RA.

6.0 Spillages -
Always clean up any spills to both the Mini Trans-Blot and the bench immediately after use.

Only you know what you have spilt and are aware of that chemicals hazard.

Mop up spills with paper towels. Wash the site of spillage with water & detergent

7.0 Maintenance -
Clean the cell, fibre pads, and cassettes with laboratory detergent and rinse well with deionised water.

8.0 Training -
All users have to be trained before using the Instrument by a designated person.

9.0 Related documents –

9.1 Equipment manual

9.2 Equipment Maintenance Information sheet

9.3 Risk assessments – RA/GEN/037 and COSHH/013

9.4 SOP SASoM/EQUIP/022
Use and Maintenance of the Powers Supplies

10.0 Approval and sign off –

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