

Electrophoretic Transfer of Proteins from Electrofocusing Gels Cast on a Plastic Support Film

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INTRODUCTION

The trend in most electrophoretic techniques is towards using thin or ultra-thin gels (0.1-0.5 mm) for increased band sharpness and faster separations.

Casting the gel on a plastic support film facilitates the handling of the gel and eliminates the risk of alteration in gel size due to swelling during the steps involved, especially when pore gradient gels are used.

However, the plastic support film has to be removed before blotting, to enable the current to pass through the gel during this step.

The device shown here has been designed to facilitate easy removal of the gel from the plastic support regardless of gel or film size and thickness.

MATERIALS AND METHODS

The Film Remover device (LKB 2117-225) was evaluated with polyacrylamide gels containing pH 3.5 - 9.5 Ampholine (LKB 1818-101). IEF was performed on an LKB 2117 Multiphor II System and the electroblotting step was carried out with the LKB Multiphor II NovaBlot using a continuous buffer system. Tris (39 mM) Glycine (48 mM) 0.0375% SDS and 20% Methanol.

CONCLUSIONS

The Film Remover device shown here conveniently removes the plastic support film from lab-cast and pre-cast gels.

The gel sizes that can be applied are in the range 200 x 250 mm down to 35 x 45 mm; and the gel thicknesses from 0.1 mm up to 1-5 mm.

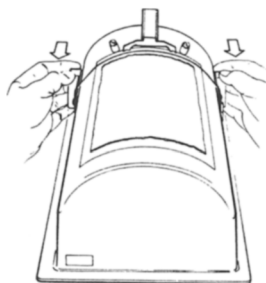


Fig. 1. Schematic drawing showing the LKB 2117-225 Film Remover device (Ref. 1).

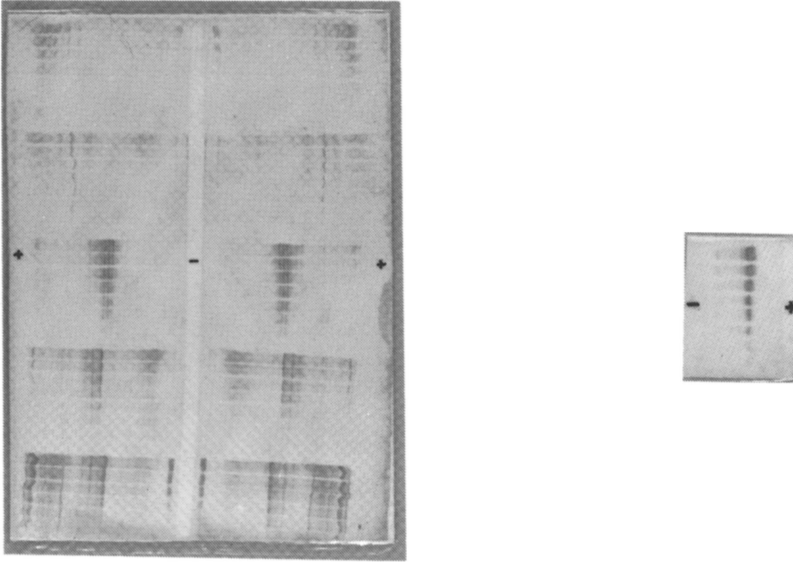


Fig. 2. Large Scale IEF gel (to the left) 200 x 250 x 0.5 mm, a three electrode system separating 60 samples on one gel, Ampholine pH gradient 3.5 - 9.5. To the right a mini gel 35 x 45 mm, a dilution series of hemoglobin, Ampholine pH range 3.5 - 9.5.

This Film Remover makes it possible to remove one part of the gel for electroblotting while the rest is left on the support film to facilitate standard staining procedures, without any risk of gel swelling or cracking.

1. Swedish patent 8605190-1, other patents pending.