Polysciences, Inc.

Corporate Headquarters
400 Valley Road
Warrington, PA 18976
1-800-523-2575
FAX 1-800-343-3291
Email: info@ polysciences.com
www.polysciences.com

Europe - Germany
Polysciences Europe GmbH
Handelsstr. 3
D-69214 Eppelheim, Germany
(49) 6221-765767
FAX (49) 6221-764620
Email: info@ polysciences.de

Epoxy Resin Removal Kit

Main Features of Kit:
- Completely removes epoxy resin from specimen quickly.
- Mild conditions reduce damage to specimen.
- Prepared kit saves time and reduces hazard of preparation of concentrated solutions.

Background:
Preparation of thin sections for electron microscopy often uses epoxy resin blocks. Current procedures for dissolving the resin for subsequent immunochemical analysis and microscopic examination have already been reported,[1,2] but the harsh conditions often affect the histochemical procedure subsequently used. Polysciences offers a kit containing solutions for the removal of resin from epoxy sections, based on a method which does not alter the immunogenicity of the sections. The method was developed by Iwadare, et al.[3] for use at low alkali concentrations. These investigators have reported that a five minute treatment resulted in complete resin removal form kidney biopsy specimens embedded in Epon 812 (Polysciences' equivalent is Poly/Bed® 812). Because the conditions of solvation are much less harsh than previously developed epoxy solvents, the sections retain, to a large measure, the immunospecifity of the original sample.

Contents of the Kit:
- Solution A (Crown ether in dimethyl sulfoxide) - 100ml
- Solution B (Methanolic potassium methoxide) - 3 ml

Instructions for Use:
To prepare the working solution, add 0.3 ml of Solution B to 10 ml of Solution A. Solution B should be mixed well before it is added to Solution A. The working solution should be prepared fresh each day because its activity decreases rapidly with storage. Biopsy specimens or other tissue samples should be fixed with glutaraldehyde and osmium tetroxide, dehydrated, and embedded with Poly/Bed® 812 using standard methods, and cut into 2.1µm sections. The sections should be adhered to glass slides with Poly (lysine hydrobromide) adhesive, soaked in freshly prepared working solution for 15-30 minutes with stirring, rinsed with distilled water, and finally stained with Loeffler's methylene blue[4] or with other specific immunochemical techniques. With biological stains increased times or concentrations may be necessary to improve staining results.

Storage and Handling:
Store both solutions at room temperature. Keep the Solution B bottle tightly capped. Do not allow to absorb moisture. Solution A is an irritant to eyes, mucous membranes, and the upper respiratory tract. Solution B is corrosive, flammable, and highly toxic. It may cause damage to the eyes, liver, heart, and kidney. Both solutions are harmful if inhaled, swallowed, or absorbed through the skin. For added information, read MSDS before using. For research only. Not for diagnostic use!

References:
1. J.A. Litwin, et al., Histochemistry, **81**, 15-22 (1984).
2. G. Hrouda, Mikroscopie, **42**, 315-317 (1985).
3. T. Iwadare, et al., Stain Technology, **65**, 205-209 (1990).
4. B. Romeis, Mikroscopische Technik, Vol. 16. Neubear-beitete und Verbessert Aufalge, R. Oldenbourg Verlag, Munchen. p. 46 (1968).

Ordering Information:

Cat. #	Description	Size
21487	Epoxy Resin Removal Kit	1 kit

Also available from Polysciences:

08791	Poly/Bed® 812 (Exact chemical replacement for Epon 812)	500g
08792	Poly/Bed® 812 Embedding Kit (1.5 liter)	1 kit
09730	Poly (lysine hydrobromide) 0.1% aqueous	25ml 250ml
Glutaraldehyde		
00216	8% EM Grade	30 x10ml amp
00216A	8% EM Grade	10x10ml amp
07710	8% EM Grade	5x100ml amp 100ml
01909	25% EM Grade	100ml 10x10ml amp
18428	50% EM Grade	100ml 10x10ml amp
00376	25% Biological Grade	500g 4 x 1gal.
00377	50% Biological Grade	500ml 4 x 1L 1Liter 500ml
Osmium tetroxide		
0223B	Crystalline	10x1g
0223C	Crystalline	10x1/2g
0972A	4% solution	20x2ml amp
0972C	4% solution	20x10ml amp

To Order:
In The U.S. Call: 1-800-523-2575 • 215-343-6484
In The U.S. FAX: 1-800-343-3291 • 215-343-0214

In Germany Call: (49) 6221-765767
In Germany FAX: (49) 6221-764620

Order online anytime at **www.polysciences.com**