

Poly-L-Lysine Adhesive Stock - Technical Memo

SOLUTION: 100 ml
Poly-L-Lysine Adhesive Stock Part 1339A

Additionally Needed:
Non-Adhesive Slides Part 6215 (Frosted End) Part 6206 (Colored End) Part 6210 (Plain)
EasyDip™ Slide Staining Jar Part 5300
EasyDip™ Slide Staining Rack Part 5300RK

For storage requirements and expiration date refer to individual bottle labels.

APPLICATION:

Newcomer Supply Poly-L-Lysine Adhesive Stock diluted to a working solution, provides a strong adhesive coating to non-adhesive microscopic slides. This applied coating enhances bonding of tissue sections to slides for use in histological, microwave and immunohistochemistry (IHC) staining procedures, leaving minimal or no background staining.

One liter of Poly-L-Lysine Working Solution will coat approximately 900 slides. Exceeding 900 slides per liter of working solution may affect product performance.

METHOD:

Technique: Paraffin or frozen sections

Solutions: All solutions are manufactured by Newcomer Supply, Inc.

PROCEDURE:

1. Fill slide rack with clean and dry non-adhesive slides.
2. Dilute Poly-L-Lysine Adhesive Stock to a working solution; combine and mix well.
 - a. Poly-L-Lysine Adhesive Stock 10 ml
 - b. Distilled Water 90 ml
 - c. See Procedure Note #1.
3. Pour Poly-L-Lysine Working Solution into a plastic staining dish, using sufficient solution to cover racked slides. Keep solution covered to avoid evaporation and dust contamination.
 - a. EasyDip™ Slide Staining Jars (5300) and Racks (5300RK) are plastic, hold 80 ml of solution with a 12-slide capacity.
4. Soak in Poly-L-Lysine Adhesive Working Solution for 5 minutes.
 - a. Increased soaking time does not improve performance.
 - b. See Procedure Notes #2 and #3.
5. Drain slides. Blot and tap excess solution from slides/rack.
6. Dry racked slides in a 60°C oven for 1 hour or overnight at room temperature in a dust-free environment.
7. Store dried treated slides in a clean slide box at room temperature and low humidity.
 - a. If slides are not thoroughly dried before storing, they will adhere together.
8. Wash emptied slide racks, plasticware and glassware after use to ensure all adhesive is removed.

PROCEDURE NOTES:

1. Poly-L-Lysine Adhesive Stock and working solutions will react and leave deposits on glassware. The use of plastic containers and graduated cylinders when mixing, storing solutions and coating slides is recommended.
2. Store used Poly-L-Lysine Working Solution at 2°- 8°C in a plastic bottle for up to three months. Discard solution if turbidity develops.
3. Filter diluted Poly-L-Lysine Working Solution between uses.
4. Do not add or mix fresh solution with used diluted solution.

REFERENCES:

1. Carson, Freida L., and Christa Hladik. *Histotechnology: A Self-Instructional Text*. 3rd ed. Chicago, Ill.: American Society of Clinical Pathologists, 2009. 70.
2. Huang, W.M, S.J. Gibson, P. Facer, J. Gu and J.M. Polak. "Improved Section Adhesion for Immunocytochemistry Using High Molecular Weight Polymers of L-Lysine as a Slide Coating." *Histochemistry* 77.2 (1983): 275-279.
3. Modifications developed by Newcomer Supply Laboratory.