

## Poly-L-Lysine Adhesive Stock - Technical Memo

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

**Additionally Needed:**  
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 when used as a diluted working solution, provides a strong adhesive coating to microscopic slides. This applied coating is very effective to further enhance bonding of tissue sections to slides for use in histological, microwave and immunohistochemistry (IHC) staining procedures and will leave very 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:

- Fill slide rack(s) with clean dry slides.
  - If necessary, clean racked slides in Acid Alcohol 1% (10011); 4-5 dips
  - Allow to completely dry.
- Dilute Poly-L-Lysine Adhesive Stock to a working solution; combine and mix well.
  - Poly-L-Lysine Adhesive Stock 10 ml
  - Distilled Water 90 ml
  - See Procedure Note #1.
- Pour Poly-L-Lysine Working Solution into an appropriate size plastic staining jar/dish, using sufficient solution to cover racked slides. Keep solution covered to avoid evaporation and/or dust contamination.
  - EasyDip™ Slide Staining Jars (5300) and Racks (5300RK) are plastic and hold 80 ml of solution with a 12 slide capacity.
- Soak slides in Poly-L-Lysine Adhesive Working Solution for 5 minutes.
  - Increased incubation time does not improve performance.
  - See Procedure Notes #2 and #3.
- Drain slides. Blot and tap excess solution from slides/rack.
- Dry racked slides in a 60°C oven for 1 hour or overnight at room temperature in as "dust-free" an environment as possible.
- Store dried treated slides in a clean slide box at room temperature in a humidity/temperature controlled environment.
  - If slides are not thoroughly dried before storing they will adhere together.
- Wash emptied slide racks, plasticware and any glassware after use to ensure all adhesive is removed.

### PROCEDURE NOTES:

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

### REFERENCES:

- Bancroft, John D., and Marilyn Gamble. Theory and Practice of Histological Techniques. 6th ed. Oxford: Churchill Livingstone Elsevier, 2008. 95, 101.
- Carson, Freida L., and Christa Hladik. *Histotechnology: A Self-Instructional Text*. 3rd ed. Chicago, Ill.: American Society of Clinical Pathologists, 2009.70
- 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.
- Modifications developed by Newcomer Supply Laboratory.