

STANDARD OPERATING PROCEDURE		
J. David Gladstone Institutes Genomic Core Laboratory		
Title: Preparation of Poly-L-Lysine coated Slides	Page Number: 1	
SOP #P001	Version: #1	Date: December 1, 2001
Author: Yanxia Hao	Reviewer: Chris Barker	

OVERVIEW

1. The following protocol is for coating 240 slides with Poly-L-lysine.
2. Be sure slide racks are bent slightly inwards in the middle to hold slides more securely.
3. Do NOT use powdered gloves at any time during this protocol.
4. To avoid dust, try to keep slides covered or submerged in solution at all times.
5. Use calcium and magnesium free PBS in this protocol.
6. **Caution:** Wear eye protection, gloves, and lab coat.

MATERIALS

1. NaOH pellets (Sigma, Cat. S-0899)
2. 95% EtOH
3. Gold Seal Microslides (Fisher, Cat. 12-518-100A)
4. Metal slide racks (holds 30 slides/rack)
5. Plastic slide boxes, 100 slide capacity (Fisher, #03-448-5)
6. MilliQ H₂O
7. 10X PBS (Digene, #3400-1010)
8. Poly-L-lysine (Sigma, Cat. P-8920)
9. Glass slide dishes
10. Plastic bottle

EQUIPMENT

1. Rotating platform
2. Mettler balance
3. Eppendorf microfuge, Model 5417C

REAGENT PREPARATION

1. Slide wash solution (wear eye protection, unpowdered gloves, and lab coat)
 - a. Dissolve 200g NaOH pellets in 800 ml H₂O
 - b. Add 1200 ml 95% EtOH
2. Poly-L-lysine solution in plastic bottle:
 - a. 1500 ml Milli-Q H₂O
 - b. 205 ml 1X PBS (filtered)
 - c. 352 ml Poly-L-lysine

PROTOCOL

1. Rinse slide dishes completely with H₂O. Add one rack of Gold Seal Microslides (30 slides/rack) per slide dish.

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2. Pour wash solution over slides and cover. Shake gently for 3 hours at room temperature. This wash removes any residual oil and debris from these “precleaned” slides.
3. Rinse each rack individually with several liters of Milli-Q water.
4. Before adding Poly-L-lysine, dump water from slides. Immediately after adding Poly-L-lysine pour solution over slides. Shake gently for 30-60 minutes.
5. Rinse each rack individually with several liters of Milli-Q H₂O.
6. Spin in tabletop centrifuge at 1,000 rpm for 10 minutes to dry. (It is not a bad idea to wipe down the inside of the centrifuge before you spin. This will remove dust that could otherwise wind up on your slides.)
7. Store slides in a clean plastic box for AT LEAST 14 days before spotting Oligos. We do NOT recommend using slides that are more than 4 months old. The hydrophobicity of a slide can be tested by watching a drop of water slide down its surface.

Note: It is possible to re-use poly-lysine solution if you are preparing several batches of slides; Simply filter and store at 4 °C in a plastic container. When ready to use, distribute solution to slide dishes and add an additional 10-15 ml of new poly-lysine to each dish. This should be repeated a maximum of 6 times.

Adapted from: DeRisi Lab, UC San Francisco, June 2001