

Laboratory for Advanced Electron and Light Optical Methods

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Poly-L-lysine Adhesive for Cell Suspensions

- A. **Purpose:** Poly-L-lysine can effectively bind particulates from the size of bacteria to large protozoa to coverslips for scanning electron microscopy.
- B. **Procedure:**
1. Prepare a 0.1% solution of poly-L-lysine in phosphate-buffered saline (pH 7.2) from Sigma poly-L-lysine (70,000-150,000 MW).
 2. Place a drop of poly-L-lysine on a pre-cleaned 12 mm round glass coverslip which is then placed into a moist chamber and allowed to stand at room temperature for about 1 hour.
 3. Rinse poly-L-lysine-coated coverslip with distilled water and place a drop of washed cell suspension on coated area of coverslip.
 4. Leave coverslip in moist chamber for approximately 1 hour.
 5. Fix and dehydrate coverslip with attached cells or particulates, critical point dry and sputter coat as described above for SEM samples.

Reference: Mazia, D., Schatten, G., and Sale, W. 1975. Adhesion of cells to surfaces coated with polylysine. *J. Cell Biol.* 66:198-200.