

Biotinylation of glass slides

- ◆ Immerse the plates in acetone to remove surface contaminants
- ◆ rinse with deionized water and dry under a stream of nitrogen
- ◆ Place in a piranha solution (conc. $\text{H}_2\text{SO}_4/\text{H}_2\text{O}_2$ (2.5:1 v/v)) for 30 min at room temperature
- ◆ Wash with deionized water and dry under a stream of nitrogen
- ◆ immerse in a freshly prepared solution of APTES (Sigma Aldrich, Australia) and anhydrous toluene (2% (v/v) APTES) for 30 min at room temperature
- ◆ rinse with anhydrous toluene to remove any excess reagent
- ◆ heat in an oven at 110°C for 20 min
- ◆ Fresh solutions of biotin-NHS in DI water with a concentration of 4.0 mg/mL were transferred to the slides
- ◆ Seal the slides in a humidity chamber to prevent evaporation of the biotin-NHS solution for 60 min.
- ◆ The slides was then rinsed copiously with DI water and subsequently sonicated in DI water for ~10-15 min.

References

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- ◆ Lapin, N. A., & Chabal, Y. J. (2009). Infrared characterization of biotinylated silicon oxide surfaces, surface stability, and specific attachment of streptavidin. *Journal of Physical Chemistry B*, *113*(25), 8776–8783. <https://doi.org/10.1021/jp809096m>