

3-Aminopropyltriethoxysilane

80370

0905.2

Number	Description
80370	3-Aminopropyltriethoxysilane , 100g (liquid with density 0.942) M.W.: 221.37 CAS#: 919-30-2 Storage: Upon receipt store at room temperature.

Introduction

Attaching proteins, DNA and drug molecules to glass surfaces can be achieved by derivatizing and coating the surface with a silane containing an amino group. Once the amine is available, numerous crosslinking agents can be used to immobilize proteins, DNA or other molecules to the surface of microplates, glass cover slips, silica supports, pipettes and other surfaces.

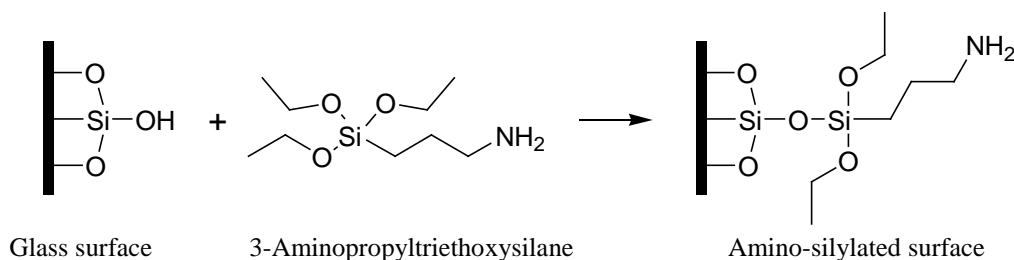


Figure 1. Reaction of 3-aminopropyltriethoxysilane with glass surface.

Protocol for Amino-Silylation of a Glass Surface

- Thoroughly wash and dry the glass, silica or quartz surface to be coated.
Note: Perform steps 2 and 3 in a fume hood.
- Prepare a 2% solution of 3-Aminopropyltriethoxysilane in acetone. For example, mix 1 part Amino-silane Reagent with 49 parts dry (i.e., water-free) acetone. Prepare a volume sufficient to immerse or cover the surface material.
- Immerse surface in the diluted reagent for 30 seconds.
- Rinse surface with acetone.
- Allow surface to air-dry.

Note: The dried silylated surface may be stored for later use.

Additional Information

Please visit the website for additional information relating to this product including the following items:

- Tech Tip #5: Attach an antibody onto glass, silica or quartz surface
- Tech Tip #1: Attach a protein onto glass, silica or quartz surface using a cleavable crosslinker

Related Thermo Scientific Products

- 42800** **Hydrocarbon-Soluble Siliconizing Fluid**, 120mL, for making glass and other surfaces inert
- 42799** **Water-Soluble Siliconizing Fluid**, 120mL, water-dispersable reagent for making glass and other surfaces inert

General References

- Chrisey, L.A., *et.al.* (1996). Covalent attachment of synthetic DNA to self-assembled monolayer films. *Nuc Acids Res* **24(15)**:3031-39.
- Hermanson, G.T., *et. al.* (1992). Immobilized Affinity Ligand Techniques, p. 12-14, Academic Press, Inc. San Diego, CA.
- Warner, W.S., *et.al.* (1989). Diffuse reflectance infrared Fourier transform spectroscopic characterization of a silica-immobilized *N*-hydroxysuccinimide active ester cross-linking agent and its precursors. *Anal Biochem* **176**:137-49.

Product References

- Ng, C.P. and Swartz, M.A. (2003). Fibroblast alignment under interstitial fluid flow using a novel 3D tissue culture model. *Am J Physiol Heart Circ Physiol* **284**:H1771-7.
- Sakamoto, T., *et al.* (2003). Neck length and processivity of myosin V. *J Biol Chem* **278(31)**:29201-7.

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