

Make all buffers and solutions with distilled or bottled water:

1. TE⁻¹ pH 8.0 buffer:

10 mM Tris pH 8

0.1 mM EDTA pH 8

Prepare from sterilized solutions, store at room temperature

2. 10X TBE buffer:

Tris Base 121 g

Boric Acid 51.3 g

EDTA 3.7 g

Distilled water to 1 litre

3. Silane A174 solution

Working solution:

Ethanol 8 mL

Glacial Acetic acid 200 uL

Silane A174 10uL

Distilled (or molecular biology water) 1.8 mL

4. Phosphate-buffered Silane (PBS) buffer:

To prepare 1 litre of 1X phosphate-buffered saline (1X PBS buffer) dissolve in 800 mL of distilled H₂O:

NaCl 8 g

KCl 0.2 g

Na₂HPO₄ 1.44g

KH₂PO₄ 0.24 g

Adjust the pH to 7.4 with dilute HCl or NaOH. Add distilled water to 1 litre.

Dispense the solution into aliquots and sterilize them by autoclaving (20 min, 121°C, liquid cycle). Store at room temperature.

Notes:

Tris has a large temperature co-efficient (-0.028 pH/°C) which means that the pH of a Tris buffer will increase with decreasing temperature. Therefore, it is important to adjust the pH at the same temperature at which the buffer will be used.