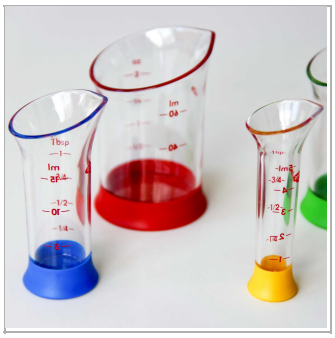

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We use this protocol and it's working

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Phosphate Buffered Saline (PBS)

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ABSTRACT

Phosphate-buffered saline (PBS) is a buffer solution (pH ~7.4) commonly used in biological research. It is a water-based salt solution containing disodium hydrogen phosphate, sodium chloride and optionally, potassium chloride and potassium dihydrogen phosphate. The buffer helps to maintain a constant pH. PBS has many uses because it is isotonic and non-toxic to most cells[1].

GUIDELINES

Follow step by step, unless stated otherwise. Equipment needed should be standard to a microbiology lab.

MATERIALS

Analytical scale, autoclave, bottle, weight vessel, LAF bench

SAFETY WARNINGS

When removing autoclaved components, be sure to take care as this can be very hot.

BEFORE START INSTRUCTIONS

Prepare glassware by cleaning it, and ensure that scale is sufficiently calibrated

1 All compounds are measured using a high precision analytical scale from powdered compounds. Each compound is measured to within 1% of the target weight. All compounds are mixed in a Duran bottle

100 mL 10x PBS w/o Ca_2++, Mg_2++

1.1 Fill the bottle with 50 mL double-distilled water

1.2 Measure 8000 mg Sodium chloride, 200 mg Potassium chloride, 144 mg Disodium phosphate and 245 mg Monopotassium phosphate

Powdered compounds:
Sodium chloride **Sigma-aldrich Catalog #S9625**
Potassium chloride **Sigma-aldrich Catalog #P3911**
Disodium phosphate **Sigma-aldrich Catalog #S9763**
Monopotassium phosphate **Sigma-aldrich Catalog #P5379**

1.3 Add powdered solids into bottle, and use a magnetic mixer with a stir bar to mix for 00:05:00 5m

1.4 Adjust pH while mixing to pH 7.4 using concentrated sodium hydroxide

1.5 Add distilled water to a total of 100 mL

1.6 Autoclave liquid at 121 °C for 00:15:00 15m