Phosphate Buffer (PBS), Powder

Cat. No. : PB180327P

Size: 5×1L / 1×10L / 1×100L

General Information

Product Form	Powder
D-Glucose	Negative
Concentration	9.61 g/L
HEPES	Negative
L-Glutamine	Negative
$NaHCO_3$	negative
Phenol red	Negative
Sodium pyruvate	Negative
Storage	2-8℃, Shading Light
Shipping	Room temperature
Expiration date	36 months

Background

Balanced Salt Solution (BSS), also known as Physiological Solution, has the characteristics of buffer force, isotonicity of normal saline, and nutrient supply of culture solution. It can keep the pH of the solution stable and provide simple nutrition, and meet the basic needs of survival and metabolism of tissues, organs, or cells in in vitro experiments.

PBS is one of the most widely used equilibrium salt solutions in biochemistry. The main components are Na_2HPO_4, KH_2PO_4, NaCl, and KCl. PBS buffers are often used to rinse tissue or cells, transport cells or tissues, prepare other reagents, to dilute the cells when counting the cells.

Preparation method

1. The preparation water should be purified water, ultra-pure water or water for injection (WFI), and the water temperature should be controlled between 20-30℃ during the preparation process.
2. Measure 90% of the final volume preparation water to the solution preparation system. Start stirring, and avoid generating bubbles. For example, if 1 L is required, add 900 mL of preparation water here. And it's recommended that the power output per unit volume (P/V) of the mixing system is greater than 10 W/m^3.
3. Weigh the appropriate amount of powder according to the concentration of 9.61 g/L accurately , and add it to the container prepared in step 2. Stir for more than 20 minutes dissolve all powder completely.
4. Add ultra pure water to adjust the volume to the 100% of required.
5. If necessary, adjust the pH to 7.20-7.40 with 1 mol/L NaOH solution or 1 mol/L HCl solution.
6. The prepared solution should be sterilized using a 0.2 μm pore size filter membrane under positive pressure (ensure aseptic technique).

7. After filtration, a small amount of PBS solution can be taken for quality inspection, and use only after passing the test.
8. The filtered PBS solution should be used immediately or stored in glass bottles, culture medium bottles (PET), or single-use storage bags with an oxygen-barrier coating at 2-8℃ in shading light. The PBS solution has a shelf life of 36 months under these conditions.

Notes

1. Please wear a lab coat and use disposable gloves and a mask during operation.
2. To ensure the optimal performance of this product, please strictly adhere to the recommended storage conditions for its preservation.
3. This product is intended for scientific research exclusively or as a raw material in the production process, and must not be applied for clinical diagnosis or treatment.