

# Dulbecco's Phosphate Buffered Saline

## Preparation of a 1X Solution

Dulbecco's Phosphate Buffered Saline (DPBS) is used in mammalian cell culture as a diluent in cell enumeration assays, for cell washing, and to resuspend cells during dissociation assays. DPBS provides the proper environment to maintain cellular structure and physiology *in vitro*.

### Procedure

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#### Preparation from a 10X Solution

1. Dilute the 10X DPBS 1:10 with cell culture-grade distilled, deionized water at room temperature (15-30°C). Ensure that the solution is thoroughly mixed.
2. Adjust the pH to 7.2 using 1N NaOH or 1N HCl. Final pH after filtration should be  $7.4 \pm 0.1$ .
3. Sterilize the solution using a 0.22 micron sterilizing filter. Do not autoclave or adjust pH using CO<sub>2</sub>.
4. Aseptically dispense the solution into sterile containers and store at room temperature (15-30°C).

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#### Preparation from Powder

1. Dry powder must be free-flowing. Do not use if powder is caked or clumping, which are signs of moisture.
2. Measure 90% of the final volume of cell culture-grade distilled, deionized water into an appropriate container for mixing. Water must be at room temperature (15-30°C).
3. Add the powdered DPBS to the water and mix until completely dissolved.
4. Adjust the pH to 7.2 using 1N NaOH or 1N HCl. Final pH after filtration should be  $7.1 \pm 0.1$ .
5. Add cell culture-grade distilled, deionized water to bring the solution to final volume.
6. Sterilize the solution using a 0.22 micron sterilizing filter. Do not autoclave or adjust the pH using CO<sub>2</sub>.
7. Aseptically dispense the solution into sterile containers and store at room temperature (15-30°C).

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#### Storage:

Store at ambient (15-30°C)