

ClearBand 10x Phosphate Buffered Saline, pH 7.4

Troubleshooting Guide

500 ml, 1000 ml, 5x500 ml

Cat No: PBS10x-500, PBS10x-1000, PBS10x-5005

Use this guide for common dilution and application problems with ClearBand 10x Phosphate Buffered Saline (PBS), pH 7.4. The product is a calcium- and magnesium-free balanced salt solution prepared with ultrapure water, filter sterilized and autoclaved.

Before You Start - Quick Checks

1. Store at room temperature.
2. Dilute the 10x stock to the working concentration required by the protocol before use.
3. Remember that this PBS does not contain calcium or magnesium.
4. Use clean water and clean vessels when preparing diluted PBS.

Problem	Most likely cause	Recommended action
Working PBS is too concentrated	The 10x stock may have been used directly instead of being diluted.	Prepare the intended working solution from the 10x stock before use.
Working PBS is too dilute	The stock-to-water ratio may be incorrect.	Recalculate the dilution from 10x to the desired final concentration and prepare a fresh batch.
Cell handling differs from a previous PBS formulation	The previous formulation may have contained calcium and/or magnesium.	Confirm that the downstream procedure is compatible with calcium- and magnesium-free PBS.
Unexpected result before cell dissociation	The wrong balanced salt formulation may have been selected.	Verify that calcium- and magnesium-free PBS is intended for the workflow described by the datasheet.
Prepared reagent volume is incorrect	The 10x stock volume may not have been included in the final-volume calculation.	Prepare the working solution to the intended final volume, accounting for both stock and diluent.
Results vary between PBS preparations	Different dilution ratios or water quality may have been used.	Standardize the dilution method and use clean high-quality water consistently.
Concern about contamination of diluted PBS	Clean handling may have been lost during working-solution preparation.	Prepare fresh working solution using clean vessels and clean technique.
Wrong product was used in a detergent-wash step	PBS and PBST are different products; this PBS does not contain Tween 20.	Use a Tween-containing buffer only when the protocol specifically calls for PBST.

Still having trouble? Recheck the 10x-to-working dilution, confirm that a calcium- and magnesium-free PBS is appropriate, and verify that plain PBS rather than PBST is required by the protocol.