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Phosphate-buffered Saline (PBS)

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Protocol status: Working

We use this protocol and it's working

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Abstract

This protocol describes how to make 1 L of PBS to a final concentration of 1x or 10x solution. The solution can be made RNase free with the addition of DEPC (diethyl pyrocarbonate) as in step 5.

Materials

MATERIALS

⊗ Hydrochloric acid **Merck MilliporeSigma (Sigma-Aldrich) Catalog #H1758**

⊗ Sodium chloride **Merck MilliporeSigma (Sigma-Aldrich) Catalog #S7653**

⊗ Potassium chloride **Merck MilliporeSigma (Sigma-Aldrich) Catalog #P9333**

⊗ Disodium phosphate **Merck MilliporeSigma (Sigma-Aldrich) Catalog #S7907**

⊗ Monopotassium phosphate **Merck MilliporeSigma (Sigma-Aldrich) Catalog #P9791**

⊗ Diethyl pyrocarbonate **Merck MilliporeSigma (Sigma-Aldrich) Catalog #D5758**

Safety warnings

- ⚠ Read appropriate SDS for sodium chloride, potassium chloride, disodium phosphate, monopotassium phosphate, hydrochloric acid and diethyl pyrocarbonate before commencing work.

Sort By Relevance Name ↑ Name ↓ Base Name ↑ Base Name ↓ Formula Weight ↑ Formula Weight ↓



- 1 For a final concentration of 1x PBS weigh out the following amount of each reagent: NaCl- 8g, KCl- 0.2 g, Na₂HPO₄- 1.44 g, KH₂PO₄- 0.24 g. For a final concentration of 10x PBS weigh out the following amount of each reagent: NaCl- 80g, KCl- 2 g, Na₂HPO₄- 14.4 g, KH₂PO₄- 2.4 g.
- 2 Dissolve reagents in 800 mL of triple distilled H₂O using a magnetic stirrer and flea or by manual shaking.
- 3 Using a pH meter, adjust pH of solution to 7.4 (or 7.2 if required) by adding concentrated hydrochloric acid (HCl).
- 4 Add triple distilled H₂O to bring final volume of solution to 1 L
- 5 If require RNase free PBS, add 1 mL of DEPC (diethyl pyrocarbonate) per 1 L of PBS.
- 6 Autoclave.