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Tris Buffered Saline (TBS)

In 1 collection

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1 Works for me dx.doi.org/10.17504/protocols.io.bfynjpve

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ABSTRACT

A buffer solution has the function of resisting changes in pH even when adding powerful acids or bases. However, in the physiological environment the buffered system also provides cofactors for enzymatic reactions, critical salts and even essential nutrients for cells and tissues. Therefore, when trying to reproduce biological conditions in vitro, we must make the appropriate choice of the buffer. After all, it will provide the appropriate medium in which reactions will occur.

MATERIALS TEXT

- Distilled Water
- ph Meter (sensitive)
- Tris Base
- NaCl

SAFETY WARNINGS

Wear personal protective equipment: gloves, lab coat and mask.

BEFORE STARTING

Organize your workspace.

Make sure all solutions and equipment are available.

Tris Buffered Saline (TBS)

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pH **7.4**

10 mM Tris
150 mM NaCl

Prepare **1 L of TBS** by dissolving **1.21 g Tris Base** and **8.7 g NaCl** in **1 L of distilled water** .

2 Adjust pH before use.

Tris has a pKa of 8.3. Hence, the buffering capacity at pH **7.4** is minimal compared to phosphate buffer (pKa = 7.21)

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