



Jun 03, 2020

Hydrochloric Acid-Potassium Chloride Buffer (HCl-KCl)

In 1 collection

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



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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

- Potassium Chloride
- Hydrochloride
- Deionized Water
- pH Meter (sensitive)

SAFETY WARNINGS

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

BEFORE STARTING

Organize your workspace.

Make sure all solutions and equipment are available.

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pH Range: pH1 to pH2.2

- (a) 0.1 M Potassium chloride: 7.45 g L⁻¹ (M.W.: 74.5 g mol⁻¹)
(b) 0.1 M Hydrochloric acid

Mix 50 ml potassium chloride and indicted volume of hydrochloric acid.

2 Mix and adjust the final volume to 100 ml with deionized water.

3 Adjust the final pH using a sensitive pH meter.