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Glycine-Sodium Hydroxide Buffer

In 1 collection

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Protocol status: Working
We use this protocol and it's working

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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

- Deionized Water
- pH Meter (sensitive)
- Glycine
- Sodium Hydroxide

Safety warnings

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

Before start

Organize your workspace.

Make sure all solutions and equipment are available.

Glycine-Sodium Hydroxide Buffer

1

Note

pH: pH 8.6 to pH 10.6

(a) 0.1 M Glycine; 7.5 g L^{-1} (M.W.: 75.0 g mol^{-1})
(b) 0.1 M Sodium hydroxide; 4.0 g L^{-1} (M.W.: 40.0 g mol^{-1})

Mix 50 mL glycine and indicated volume of sodium hydroxide solutions.

	mL of Sodium hydroxide	4.0	8.8	16.8	27.2	32.0	38.6	45.5
	pH	8.6	9.0	9.4	9.8	10.0	10.4	10.6

2 Adjust the final volume to 200 mL with deionized water.

3 Adjust the final pH using a sensitive pH meter