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Ringer's Solution

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Protocol status: Working

We use this protocol and it's working

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Abstract

Standard protocol for preparing 100mL of Ringer's Solution for mice and rat perfusions.

Guidelines

Make sure you bubble for at least 5 minutes before adding calcium chloride to Ringer's solution to prevent precipitation. If precipitation occurs, discard and remake entire solution.

Materials

- 100mL Erlenmeyer flask
- 1000 μ L Pipette
- Serological Pipettes

Safety warnings

 Always wear appropriate PPE.



- 1 1.0 mL (Na_2HPO_4 , 18 g/L, at room temperature)
- 2 9.9 mL (NaCl , 79.8 g/L, 4 °C fridge)
- 3 1.0 mL (KCl , 37.5 g/L, 4 °C fridge)
- 4 1.0 mL ($\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$, 20 g/L, 4 °C fridge)
- 5 2.5 mL (NaHCO_3 , 50 g/L, 4 °C fridge)
- 6 0.200g of Dextrose
- 7 Bring solution up to 97ml with double distilled water (ddH_2O).
- 8 1.0 ml Lidocaine hydrochloride
- 9 1.0 ml heparin (prevents blood clotting)
—bubble 95% air: 5% CO_2 at 35 °C
- 10 1.0 mL ($\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$, 30 g/L, 4 °C fridge)