

Technical Data Sheet

D-PBS (1X) Powder mixture

for cell biology Order number: 1346

Introduction

All media used in tissue culture are based on a mixture of inorganic salts known as balanced salt solution. These physiological salt solutions have been derived from the salt solution originally described by Sydney Ringer in 1885. Since that time, many modifications have been developed and the properties of the balanced salt solutions have been improved. The solutions maintain the medium's pH within the physiological range and keep the intra- and extracellular osmotic balance stable. D-PBS (Dulbecco's Phosphate Buffered Saline) without calcium, magnesium and phenol red is commonly used for tissue disaggregation and monolayer dispersal since the presence of Calcium and Magnesium ions may hinder trypsin activity.

Composition

	1X D-PBS	10X D-PBS
Disodium hydrogen phosphate (Na2HPO4)	1.15 mg/L	11.50 g/L
Potassium chloride (KCl)	0.20 mg/L	2.00 g/L
Potassium phosphate, monobasic (KH2PO4)	0.20 mg/L	2.00 g/L
Sodium chloride (NaCl)	8.00 mg/L	80.00 g/L
Net weight	9.55 g/L	95.50 g/L

Directions

To obtain a 1X PBS solution suspend 9.55 g of D-PBS (1X) Powder mixture in 900ml water (cell biology grade). Stir gently until the powder is completely dissolved. Adjust the pH with 1N HCl or 1N NaOH. Since the pH tends to rise during filtration, we recommend keeping 0.2-0.3 pH units below the desired pH. Fill up to the final volume of 1 L with water. Sterilize the solution immediately by filtering through a sterile membrane filter with a porosity of 0.22 micron or less. To minimize the loss of carbon dioxide positive pressure rather than vacuum is recommended. Store the liquid solution at ambient temperature.

Storage

D-PBS (1X) Powder mixture and the prepared salt solutions should be stored at ambient temperature.

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