

Krebs-Ringer 缓冲液

货号: G0430

规格: 500 mL

保存: 2-8°C 保存, 有效期 1 年。

产品组成:

成分	g/L
D-葡萄糖	1.8
无水氯化镁	0.0468
氯化钾	0.34
氯化钠	7.0
无水磷酸二氢钠	0.1
无水磷酸氢二钠	0.18
碳酸氢钠	1.26
混匀后	
pH	7.3±0.2
渗透压	270±15

产品类型: 无菌过滤即用型液体培养基

产品介绍:

早在 19 世纪, 研究人员就探索如何在体外培养动物组织, 平衡盐 (balanced salt solution) 溶液是组织培养较早使用的溶液。1985 年 Sydney Ringer 在此基础上制备了完全由无机盐组成的盐溶液成功维持了哺乳动物心肌组织在体外的搏动 (contractility)。随后 Tyrode 制备了低特异性的、可广泛用于哺乳动物细胞工作的盐溶液 (Tyrode salt solution), 该培养基在当时被广为接受作为母液用以稀释其它比如蛋白质组分。从那时起, 多种平衡盐溶液开发用以组织和细胞培养, 根据其作用, 目前常用的平衡盐溶液分为以下几类:

1. 为细胞生长和增殖提供水分和无机盐类以满足正常细胞代谢;
2. 为细胞生长提供适宜的酸碱环境, 一般 pH 范围在 7.2-7.6 之间;
3. 提供氨基酸等营养素满足细胞生长和增殖代谢之需;
4. 添加碳水化合物 (glucose) 及代谢中间产物满足细胞的能量需求;
5. 为细胞提供适宜的渗透压环境。

参考文献:

[1]. Krebs HA and Henseleit K. Studies on urea formation in the animal organism. Hoppe-Seylers Z.Physiol. Chem. 210:33-66, 1932.

Krebs-Ringer Bicarbonate Buffer

Cat: G0430

Size: 500 mL

Storage: 2-8°C, valid for 1 year.

Reagent components

Ingredients	g/L
D-Glucose	1.8
Magnesium Chloride [Anhydrous]	0.0468
Potassium Chloride	0.34
Sodium Chloride	7.0
Sodium Phosphate Dibasic [Anhydrous]	0.1
Sodium Phosphate Monobasic [Anhydrous]	0.18
Sodium Bicarbonate	1.26
Specification	
pH (after buffer)	7.3±0.2
Osmolality (mOsm)	270±15

Reagent type: Aseptic filtered ready-to-use liquid medium

Introduction

As early as the 19th century, researchers explored how to culture animal tissues in vitro. Balanced salt solution is the solution used earlier in tissue culture. In 1935, Sydney Ringer prepared a salt solution consisting entirely of inorganic salts, which successfully maintained the contractility of mammalian myocardium in vitro. Subsequently, Tyrode prepared a low-specific salt solution that could be widely used in mammalian cell work. This medium was widely accepted as a base solution to dilute other components such as proteins at that time. Since then, a variety of balanced salt solutions have been developed for tissue and cell culture. According to their functions, the commonly used balanced salt solutions can be divided into the following categories:

1. Provide water and inorganic salts for cell growth and proliferation to meet normal cell metabolism;
2. Provide suitable acid-base environment for cell growth, the general pH range is 7.2-7.6;
3. Provide amino acids and other nutrients to meet the needs of cell growth and proliferation and metabolism;
4. Add carbohydrates and metabolic intermediates to meet the energy needs of cells;
5. Provide suitable osmotic pressure environment for cells.

Reference

[1]. Krebs HA and Henseleit K. Studies on urea formation in the animal organism. Hoppe-Seylers Z.Physiol. Chem. 210:33-66, 1932.