

Technical Information

Earle's Balanced Salt Solution 1X

With Sodium bicarbonate and Phenol red Without Calcium and Magnesium

Product Code: TL2110

Application: All media used in tissue culture have a basis of a synthetic mixture of inorganic salts known as a physiological or balanced salt solution (BSS). All the physiological salt solutions have been derived from the salt solution originally described by Sydney Ringer (1885). The first balanced salt solution to be developed specifically for supporting the metabolism of mammalian cells was Tyrode's solution. Since then many modifications have been done to obtain better buffering salt solutions and to prevent calcium precipitation.

The function of a salt solution is:

- To maintain the medium within physiological pH range.
- To maintain intracellular and extra cellular osmotic balance.
- Modified with a carbohydrate, such as glucose serves as an energy source for cell metabolism.

Earle's balanced salt solution is designed to equilibrate with a 5% CO₂ in air mixture. TL2110 is Earle's

balanced salt solution with sodium bicarbonate and phenol red hence requires the cells to be grown in a 5% CO₂ environment. It does not contain calcium and magnesium.

Composition**

Ingredients	mg / Litre
INORGANIC SALTS	
Potassium chloride	0.400
Sodium bicarbonate	2.200
Sodium chloride	6.800
Sodium dihydrogen orthophosphate	0.122
OTHERS	
Dextrose anhydrous	1.000
Phenol red sodium salt	0.011

Quality control

Appearance

Red colored, clear solution

pH

7.00 - 7.60

Osmolality in mOsm/Kg H₂O

265.00 -305.00

Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

Toxicity test

Passes

Endotoxin Content

NMT 1EU/ml

Storage and Shelf Life

Store at 15-30 °C away from bright light.

Shelf life is 24 months.

Use before expiry date given on the product label.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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