

### Technical Information

#### Earle's Balanced Salt Solution 1X

#### With Sodium bicarbonate Without Calcium, Magnesium and Phenol red

#### Product Code: TL2107

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% CO<sub>2</sub> in air mixture. TL2107 is Earle's balanced salt solution with sodium bicarbonate hence requires the cells to be grown in a 5% CO<sub>2</sub> environment. It does not contain calcium, magnesium and phenol red.

#### Composition\*\*

Ingredients	mg / Litre
<b>INORGANIC SALTS</b>	
Potassium chloride	400.000
Sodium bicarbonate	2200.000
Sodium chloride	6800.000
Sodium dihydrogen orthophosphate	122.000
<b>OTHERS</b>	
Dextrose anhydrous	1000.000

#### Quality control

##### Appearance

Clear colourless solution

##### pH

7.40 -8.00

##### Osmolality in mOsm/Kg H<sub>2</sub>O

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 5EU/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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