

## Technical Information

### Krebs-Ringer Bicarbonate Buffer 1X

With Calcium chloride, HEPES buffer, 0.2% Bovine serum albumin and Sodium bicarbonate  
Without Glucose

#### Product Code: TL2143

**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 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.

TL2143 is Krebs-Ringer Bicarbonate Buffer with Calcium chloride, HEPES buffer, 0.2% bovine serum albumin and sodium bicarbonate. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37°C prevents the initial rise in pH that tends to occur at the initiation of a culture and increases the buffering

#### Composition\*\*

Ingredients	mg / Litre
<b>INORGANIC SALTS</b>	
Calcium chloride dehydrate	367.000
Magnesium chloride hexahydrate	223.000
Potassium chloride	372.000
Sodium bicarbonate	1260.00
Sodium chloride	7012.00
<b>OTHERS</b>	
Bovine serum albumin	2000.000
HEPES buffer	2383.000

#### Quality control

##### Appearance

Colorless, clear solution

##### pH

6.70 – 7.30

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

250.00 – 290.00

##### 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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