

Technical Information

Hanks' Balanced Salt Solution 1X With 10mM HEPES and Sodium bicarbonate Without Phenol red, Calcium and Magnesium

Product Code: TL2151

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.

Hanks' balanced salt solution is designed to equilibrate with air, hence does not require CO₂ air mixture.

TL2151 is Hanks' balanced salt solution with 10mM HEPES and sodium bicarbonate. It is designed for use with cells maintained in less CO₂ environment or CO₂ free environment. It does not contain phenol red.

Composition**

Ingredients	mg / Litre
INORGANIC SALTS	
Disodium hydrogen phosphate	48.000
Potassium chloride	400.000
Potassium dihydrogen phosphate anhydrous	60.000
Sodium bicarbonate	350.000
Sodium chloride	8000.000
OTHERS	
D-Glucose	1000.000
HEPES	2380.000

Quality control

Appearance

Colourless, clear solution

pH

6.50-7.10

Osmolality in mOsm/Kg H₂O

280.00 – 320.00

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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