Hanks' Balanced Salt Solution 1X
With Phenol red and Sodium bicarbonate

Product Code: TL1003

Product Description:
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. TL1003 is Hanks’ balanced salt solution with phenol red and sodium bicarbonate. It is designed for use with cells maintained in less CO₂ environment or CO₂ free environment.

Composition:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>INORGANIC SALTS</td>
<td></td>
</tr>
<tr>
<td>Calcium chloride dihydrate</td>
<td>185.410</td>
</tr>
<tr>
<td>Disodium hydrogen phosphate</td>
<td>48.000</td>
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<tr>
<td>Magnesium sulphate anhydrous</td>
<td>97.720</td>
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<tr>
<td>Potassium chloride</td>
<td>400.000</td>
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<tr>
<td>Potassium dihydrogen phosphate</td>
<td>60.000</td>
</tr>
</tbody>
</table>

Sodium bicarbonate 350.000
Sodium chloride 8000.000
OTHERS
D-Glucose 1000.000
Phenol red sodium salt 11.000

Quality Control:
Appearance
Red colored, clear solution
pH
7.20 - 7.80
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.

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