Earle's Balanced Salt Solution 1X

With Sodium bicarbonate
Without Phenol red

Product Code: TL1009

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.

Earle's balanced salt solution is designed to equilibrate with a 5% CO₂ in air mixture. TL1009 is Earle's balanced salt solution with sodium bicarbonate, hence requires the cells to be grown in a 5% CO₂ environment. It does not contain phenol red.

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>265.000</td>
</tr>
<tr>
<td>Magnesium sulphate anhydrous</td>
<td>97.720</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>400.000</td>
</tr>
<tr>
<td>Sodium bicarbonate</td>
<td>2200.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>6800.000</td>
</tr>
<tr>
<td>Sodium dihydrogen phosphate anhydrous</td>
<td>122.000</td>
</tr>
<tr>
<td>D-Glucose</td>
<td>1000.000</td>
</tr>
</tbody>
</table>

Quality Control:

- Appearance: Colorless, clear solution
- pH: 7.40 - 8.00
- Osmolality in mOsm/Kg H₂O: 265.00 - 305.00
- 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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