HEPES Solution, 1 M

Contains 238.3 g/L HEPES in Cell Culture Water (pH 7.3)

Cat. No. CHEP001 | Size: 100 ML

1. Product Description

HEPES (N-2-hydroxyethylpiperazine-N-2-ethane sulfonic acid) has a pKa (25°C) of 7.48 and an effective pH range of 7.0 to 8.0, making it a widely used buffer in cell culture. It is especially excellent for stably and consistently maintaining the pH of culture media regardless of changes in CO_2 concentration as cells grow. Therefore, culture media containing a certain amount of HEPES can maintain pH more stably during the cell culture period compared to media containing only sodium bicarbonate ($NaHCO_3$), which is frequently used in cell culture.

2. Composition

Component	g/L
HEPES (N-2-hydroxyethylpiperazine-N-2-ethane sulfonic acid)	238.3

3. Product Quality Specifications

Appearance	pH	Osmolality	Sterility
Colorless clear liquid	pH 7.0 ~ 7.6	1503 ~ 1837 mOsm/kg H_2O	Sterile

4. Storage Conditions and Precautions

Protect from direct light and store refrigerated (2~8°C). The expiration date is indicated on the product label; do not use expired products. Product degradation may appear as precipitates, floating particles, turbidity, or color change; discard if any are observed. Storing against the inner walls of a refrigerator where temperatures may approach 0°C can cause degradation due to ice crystal formation. The addition of extra substances may also cause degradation.

5. Usage Instructions and Precautions

This product is a sterile solution. Open the cap only in a sterile environment (e.g., a clean bench) using aseptic technique. It is recommended to use the entire contents after opening; otherwise, aliquot into a suitable sterile container and store properly.