

Catalog Number:

B35110

PRODUCT DESCRIPTION

N-2-hydroxyethylpiperazine-N'-2-ethanesulfonic acid (HEPES) is a zwitterionic buffer with a pKa of 7.3 at 37 °C. HEPES may be added to cell culture media at a final concentration of 10-25 mM to provide additional buffering capacity if required. Concentrations of this organic buffer should be reduced if cytotoxicity is apparent for a specific cell line or primary cell culture. Media supplemented with HEPES exhibit more effective buffering in the physiological pH range with most cell cultures than media using the normal bicarbonate buffering system alone. However, HEPES should be added in addition to, not instead of, sodium bicarbonate, as it is important to maintain sufficient bicarbonate in the medium for nutritional purposes. Since the buffering capacity of HEPES is independent of the CO₂ concentration, it is an ideal buffer for maintaining the pH of cultures outside of the CO₂ incubator. HEPES buffered media are resistant to rapid, drastic pH changes, but will not prevent pH shifts entirely.

The HEPES Buffer Solution is supplied as a 1M (238.3 g/L) solution, pH 7.3 ± 0.1 in cell culture grade water.

STORAGE AND HANDLING

The HEPES Buffer Solution is supplied in gamma irradiated, sterile PETG or PETE bottles. We recommend that the HEPES Buffer Solution be stored refrigerated at a temperature of 2-8 °C. Always use aseptic techniques when handling the HEPES Buffer Solution.

PRECAUTION

When handling bio-hazardous materials such as human cells, safe laboratory procedures should be followed, and personal protective equipment should be worn.

LIMITATIONS

- FOR LABORATORY RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.
- The safety and efficacy of this product in diagnostic or other clinical uses has not been established.
- Results may vary due to variations among tissue/cells derived from different donors or sources.