

HEPES Buffer Solution (1.0 M)

Catalog Number **BB 001-01**

Storage Temperature 2~8°C

Product Description

HEPES has been described as one of the best all-purpose buffers available for biological research. HEPES has been used in a wide variety of applications, including tissue culture. HEPES is reportedly superior to NaHCO₃ in controlling pH in tissue and organ culture. Buffer strength for cell culture applications is usually in the range of 10 to 25 mM. But HEPES is not recommended for certain protein applications; it interferes with the Folin-Ciocalteu protein assay. A buffer solution of HEPES can be prepared by any of several methods. The free acid can be added to water, then titrated with approximately one-half mole equivalent of sodium hydroxide or potassium hydroxide to the precise pH desired, with adjustments made for final temperature and volume. Alternatively, equimolar concentrations of HEPES and of sodium HEPES can be mixed in approximately equal volumes, back-titrating with either solution to the appropriate pH.

BB 001-01 contains 238.3 g/L HEPES in cell/tissue culture grade water (**LS016-01**).

Storage/Stability

The concentrated HEPES buffer should be stored at 2~8°C. Deterioration of the solution may be recognized by (1) precipitate or particulate matter throughout the solution, (2) cloudy appearance, (3) color change, and/or (4) pH change. Product label bears expiration date.

Precautions

For *In Vitro* Use Only

g/L	
Components	BB 001-01
HEPES	238.3
Product Profile	
Appearance	Clear colorless solution
Molecular Formula	C ₈ H ₁₇ N ₂ O ₄ SNa
Molecular Weight	260.3
DNase, RNase, and Proteinase	None Detected
Sterility	Sterilized by 0.2 μm filtration system. Sterility tests are performed in accordance with protocols described in USP.