



HEPES Free Acid

Catalog number

H2010

Supplier

United States Biological

HEPES is a biological buffer (zwitterionic) designed by Good, et al., and typically referred to as Good's buffer useful in cell culture media formulations. Selection of biological buffer systems should include the following criteria: exclusion by biological membranes, low absorption between 240 and 700nm, chemically stable, and stable to temperature and concentration changes.

Synonym

N-[2-Hydroxyethyl]piperazine-N'-[2-ethanesulfonic acid]

CAS No

7365-45-9

Molecular Formula

C₈H₁₈N₂O₄S

Molecular Weight

238.31

Purity

≥99.0%

Appearance

White, crystalline powder

Identity (IR)

Conform to reference

Solubility

Colorless, clear, complete

A_{260nm} (1M)

≤0.05

A_{280nm} (1M)

≤0.05

A_{405nm} (1M)

≤0.05

pH

5.2±0.5



pKa1

~3

pKa2

7.55±0.2

Water (KF)

≤0.5%

Residue on Ignition

≤0.5%

Heavy Metals

≤0.001%

RNase, DNase, Protease

None Detected

Endotoxin

≤1EU/mg

Grade

Molecular Biology Grade

Storage

RT

MW

238.31

Formula

C₈H₁₈N₂O₄S

Reference

1. Good, N. E., et al., Biochemistry 5:467 (1966)