MEM

(Minimum Essential Medium, Eagle)

Cat. No. CPM102

With Earle's Salts
With L-Glutamine
With Non-Essential Amino Acids
With Sodium Bicarbonate

1. Product Description

MEM is an improvement over BME developed by Harry Eagle, featuring enhanced amino acid concentrations that serve as the basis for Alpha-MEM, DMEM, and others. MEM contains Earle's Salts for pH maintenance in a CO_2 incubator. In particular, this product includes Non-Essential Amino Acids (NEAA), making it applicable to a wider variety of cell cultures.

2. Composition

Concentration: mg/L

Amino Acids	mg/L
L-Alanine	8.90
L-Arginine·HCl	126.00
L-Asparagine·H_2O	13.20
L-Aspartic Acid	13.30
L-Cystine·2HCl	31.28
L-Glutamic Acid	14.70
L-Glutamine	292.00
Glycine	7.50
L-Histidine·HCl·H_2O	42.00
L-Isoleucine	52.00
L-Leucine	52.00
L-Lysine·HCl	72.50
L-Methionine	15.00
L-Phenylalanine	32.00
L-Proline	11.50
L-Serine	10.50
L-Threonine	48.00
L-Tryptophan	10.00
L-Tyrosine·2Na	51.90
L-Valine	46.00

Vitamins & Others	mg/L
D-Ca Pantothenate	1.00
Choline Chloride	1.00
Folic Acid	1.00
i-Inositol	2.00
Niacinamide	1.00
Pyridoxal·HCl	1.00
Riboflavin	0.10
Thiamine·HCl	1.00
D-Glucose	1000.00
Phenol Red	10.00
HEPES	—

Inorganic Salts	mg/L
$CaCl_2$	200.00
KCl	400.00
$MgSO_4$	97.67
NaCl	6800.00
$NaHCO_3$	2200.00
$NaH_2PO_4·H_2O$	140.00

3. Product Quality Specifications

Appearance	pH	Osmolality	Endotoxin	Sterility
Red clear liquid	pH 7.3 ± 0.3	293 ± 15 mOsm/kg H_2O	< 1 EU/mL	Sterile

4. Storage Conditions and Precautions

Protect from direct light and store refrigerated (2–8°C). 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.

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 refrigerated (2–8°C).