

## **Eagle's Minimum Essential Medium (MEM), Alpha Modification** *with 25mM HEPES Buffer, Ribonucleosides and Deoxyribonucleosides, and L-Glutamine without Phenol Red*

<b>Catalog Number:</b>	<b>Size:</b>
M20850	500 mL

### **PRODUCT DESCRIPTION**

Eagle's Minimum Essential Medium (MEM) is one of the most commonly used cell culture media. MEM is suitable for a broad spectrum of mammalian cells in culture. In comparison with BME, it contains higher concentrations of amino acids and other essential nutrients. A variety of MEM versions are available with Earle's salts for use in a CO<sub>2</sub> incubator, with Hanks' salts for use without CO<sub>2</sub>, with or without non-essential amino acids, or as Alpha modification with or without nucleosides.

Each lot of MEM Alpha is prepared from a powdered base medium and tissue culture-grade water. Representative samples of each lot of MEM Alpha are tested to confirm the absence of bacterial or fungal contamination using methods adapted from the current U.S. Pharmacopeia. MEM Alpha is manufactured in our ISO 9001:2015 certified facility.

For the specific media formulation, please refer to the Media Formulation section of the datasheet.

### **STORAGE AND HANDLING**

MEM Alpha is supplied in gamma-irradiated, sterile PETG or PETE bottles. We recommend that MEM Alpha be stored at a temperature of 2-8 °C, and protected from strong light. Always use aseptic techniques when handling and supplementing MEM Alpha.

### **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.

# MEDIA FORMULATION

## INORGANIC SALTS

mg/L

Calcium Chloride • 2H <sub>2</sub> O	264.92
Magnesium Sulfate (Anhydr.)	97.67
Potassium Chloride	400.00
Sodium Chloride	6300.00
Sodium Phosphate, Monobasic (Anhydr.)	121.74

## AMINO ACIDS

mg/L

L-Alanine	25.00
L-Arginine • HCl	126.98
L-Asparagine • H <sub>2</sub> O	50.00
L-Aspartic Acid	30.00
L-Cysteine • HCl • H <sub>2</sub> O	100.00
L-Cystine • 2HCl	31.29
L-Glutamic Acid	75.00
L-Glutamine	292.00
Glycine	50.00
L-Histidine • HCl • H <sub>2</sub> O	42.00
L-Isoleucine	52.00
L-Leucine	52.00
L-Lysine • HCl	72.46
L-Methionine	15.00
L-Phenylalanine	32.00
L-Proline	40.00
L-Serine	25.00
L-Threonine	48.00
L-Tryptophan	10.00
L-Tyrosine • Na <sub>2</sub> • 2H <sub>2</sub> O	51.90
L-Valine	46.00

## VITAMINS

mg/L

L-Ascorbic Acid	50.00
D-Biotin	0.10
Choline Chloride	1.00
Folic Acid	1.00
myo-Inositol	2.00
Nicotinamide	1.00
D-Pantothenic Acid, Hemicalcium Salt	1.00
Pyridoxal • HCl	1.00
Riboflavin	0.10
Thiamine • HCl	1.00
Vitamin B12	1.36

## OTHER COMPONENTS

mg/L

Adenosine	10.00
Cytidine	10.00
2'-Deoxyadenosine • H <sub>2</sub> O	10.00
2'-Deoxycytidine HCl	11.00
2'-Deoxyguanosine H <sub>2</sub> O	10.00
D-Glucose	1000.00
Guanosine	10.00
HEPES	5958.00
Lipoic Acid	0.20
Sodium Pyruvate	110.00
Thymidine	10.00
Uridine	10.00
Sodium Bicarbonate	2200.00