

## Eagle's Minimum Essential Medium (MEM), Alpha Modification

*with 25mM HEPES Buffer and Ribonucleosides and Deoxyribonucleosides  
without L-Glutamine*

**Catalog Number:**

M20750

**Size:**

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  |
| 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 |
| Phenol Red • Na                      | 10.20   |
| Lipoic Acid                          | 0.20    |
| Sodium Pyruvate                      | 110.00  |
| Thymidine                            | 10.00   |
| Uridine                              | 10.00   |
| Sodium Bicarbonate                   | 2200.00 |