

## Minimum Essential Medium Eagle (MEM)

(Alpha Modification)

**With L Glutamine, Deoxyribonucleosides, Ribonucleosides and Sodium bicarbonate  
Without Phenol red**

**Product Code: AL253A**

### Product Description:

Minimum Essential Medium Eagle (MEM) is a modification of Basal Medium Eagle (BME). It was developed by Harry Eagle to meet the specific nutritional requirements of certain subtypes of HeLa cells and fibroblasts. MEM includes higher concentration of amino acids so as to closely approximate the protein composition of cultured mammalian cells. MEM can be used either with Earle's salts or Hanks' salts and can also be additionally supplemented with non-essential Amino Acids (NEAA). This medium can be further modified by eliminating calcium to facilitate growth of cells in suspension cultures normal mammalian.

AL253A is alpha modification of Minimum Essential Medium Eagle with L-glutamine, deoxyribonucleoside, ribonucleoside and sodium bicarbonate. It does not contain phenol red. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

### Composition:

Ingredients	mg/L
<b>INORGANIC SALTS</b>	
Calcium chloride dihydrate	265.000
Magnesium sulphate anhydrous	97.720
Potassium chloride	400.000
Sodium chloride	6800.000
Sodium bicarbonate	2200.00
Sodium dihydrogen phosphate anhydrous	122.000

### AMINO ACIDS

Glycine	50.000
L-Alanine	25.000
L-Arginine hydrochloride	126.000
L-Asparagine monohydrate	50.000
L-Aspartic acid	30.000
L-Cysteine hydrochloride monohydrate	100.000
L-Cystine dihydrochloride	31.300
L-Glutamic acid	75.000
L-Glutamine	292.000
L-Histidine hydrochloride monohydrate	42.000
L-Isoleucine	52.000
L-Leucine	52.000
L-Lysine hydrochloride	72.500
L-Methionine	15.000
L-Phenylalanine	32.000
L-Proline	40.000
L-Serine	25.000
L-Threonine	48.000
L-Tryptophan	10.000
L-Tyrosine disodium salt dihydrate	51.900
L-Valine	46.000

### VITAMINS

Choline chloride	1.000
D-Biotin	0.100
D-Ca-Pantothenate	1.000
Folic acid	1.000
L-Ascorbic acid	50.000
Nicotinamide	1.000
Pyridoxal hydrochloride	1.000
Riboflavin	0.100
Thiamine hydrochloride	1.000
Vitamin B12	1.360
i-Inositol	2.000

**OTHERS**

2' Deoxyadenosine	10.000
2' Deoxycytidine hydrochloride	11.000
2' Deoxyguanosine	10.000
Adenosine	10.000
Cytidine	10.000
D-Glucose	1000.000
Guanosine	10.000
Lipoic acid	0.200
Sodium pyruvate	110.000
Thymidine	10.000
Uridine	10.000

**Quality Control:****Appearance**

Clear solution, with pink tinge.

**pH**

7.00 - 7.60

**Osmolality in mOsm/Kg H<sub>2</sub>O**

290.00 - 330.00

**Sterility**

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

**Cultural Response**

The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts and comparing with a control medium.

**Endotoxin Content**

NMT 1EU/ml

**Storage and Shelf Life:**

Store at 2-8°C away from bright light.

Shelf life is 12 months.

Use before expiry date given on the product label.

**Disclaimer :**

Revision : 06/2025

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic , research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.