

Technical Information

Minimum Essential Medium Eagle (MEM) (Alpha modification)

With Sodium bicarbonate Without Deoxyribonucleosides, Ribonucleosides and L-Glutamine 1X Liquid Cell Culture Medium

Product Code: AL1081

Application:-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 normal mammalian 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 Hank's 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.

AL1081 is alpha modification of Minimum Essential Medium Eagle with sodium bicarbonate and non-essential amino acids. It does not contain deoxyribonucleosides, ribonucleosides and L-glutamine. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

Composition**

Ingredients	mg/Litre
INORGANIC SALTS	
Calcium chloride dehydrate	265.000
Magnesium sulphate anhydrous	97.720
Potassium chloride	400.000
Sodium bicarbonate	2200.000
Sodium chloride	6800.000
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	100.000
L-Cystinedihydrochloride	31.300
L-Glutamic acid	75.000
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	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

D-Glucose	1000.000
Lipoic acid	0.200
Phenol red sodium salt	11.000
Sodium pyruvate	110.000

Methodology

1. Add 10ml of 200mM L-glutamine (TCL1012) for 1 litre of medium.

Material required but not provided

L-Glutamine solution 200mM (TCL1012)

Quality control

Appearance

Orangish red colored, clear solution.

pH

7.00 -7.60

Osmolality in mOsm/Kg H₂O

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 it with a control medium through minimum three subcultures.

Endotoxin Content

NMT 5EU/ml

Storage and Shelf Life

Store at 15-30 °C away from bright light. Shelf life is 24 months. Use before expiry date given on the product label.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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