

Technical Information

Minimum Essential Medium Eagle (MEM) With Hanks' salts, L-Glutamine, NEAA and Sodium bicarbonate

Product Code: AL1048A

Application:- Minimum Essential Medium (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 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.

AL1048A is Minimum Essential Medium with Hanks' balanced salts, L-glutamine, sodium bicarbonate and non-essential amino acids. Hanks' salt mixture is designed to equilibrate with air, hence does not require CO₂ air mixture. Cells can therefore be grown in AL1048A in less CO₂ or CO₂ free environment. 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 dihydrate	185.000
Disodium hydrogen phosphate anhydrous	47.800
Magnesium sulphate anhydrous	97.720
Potassium chloride	400.000
Potassium dihydrogen phosphate	60.0000
Sodium bicarbonate	350.000
Sodium chloride	8000.000
AMINO ACIDS	
Glycine	7.500
L-Alanine	8.900
L-Arginine hydrochloride	126.000
L-Asparagine monohydrate	15.000
L-Aspartic acid	13.300
L-Cystine dihydrochloride	31.300
L-Glutamic acid	14.700
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	11.500
L-Serine	10.500
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-Ca-Pantothenate	1.000
Folic acid	1.000
Nicotinamide	1.000
Pyridoxine hydrochloride	1.000
Riboflavin	0.100
Thiamine hydrochloride	1.000
i-Inositol	2.000
OTHERS	
D-Glucose	1000.000
Phenol red sodium salt	11.000

Quality control

Appearance

Red coloured clear solution.

pH

7.00 -7.60

Osmolality in mOsm/Kg H₂O

335.00 -375.00

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 .

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 :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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