

Technical Information

Minimum Essential Medium Eagle (MEM)

With Hank's salts Without L-Glutamine and Sodium bicarbonate 10X Liquid Cell Culture Medium

Product Code: AL1190

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 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.

AL1190 is 10X Minimum Essential Medium with Hank's balanced salts. It does not contain L-glutamine and sodium bicarbonate. 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	1854.100
Magnesium sulphate anhydrous	977.200
Potassium chloride	4000.000
Potassium phosphate monobasic	600.000
Sodium chloride	80000.000
Sodium phosphate dibasic anhydrous	478.000
AMINO ACIDS	
L-Arginine hydrochloride	1260.000
L-Cystinedihydrochloride	313.000
L-Histidine hydrochloride	420.000
L-Isoleucine	520.000
L-Leucine	520.000
L-Lysine hydrochloride	725.000
L-Methionine	150.000
L-Phenylalanine	320.000
L-Threonine	480.000
L-Tryptophan	100.000
L-Tyrosine disodium salt	519.000
L-Valine	460.000
VITAMINS	
Choline chloride	10.000
D-Ca-Pantothenate	10.000
Folic acid	10.000
Nicotinamide	10.000

Pyridoxal hydrochloride	10.000
Riboflavin	1.000
Thiamine hydrochloride	10.000
i-Inositol	20.000
OTHERS	
D-Glucose	10000.000
Phenol red sodium salt	110.000

Methodology

1. Add 4.7ml of 7.5% sodium bicarbonate solution (TCL013) and 10 ml of 200mM L-glutamine (TCL1012) for 1 litre of 1X medium prior to use.

Material required but not provided

L-Glutamine solution 200mM (TCL1012) Sodium bicarbonate solution 7.5% (TCL013) Tissue culture grade water (TCL1010)

Quality control

Appearance

Yellow to orange colored, clear solution.

pH

5.40 -6.00

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 2-8°C away from bright light. Shelf life is 18 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.
- **Central Drug House 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 diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- 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.
- Do not use the products if it fails to meet specifications for identity and performance parameters.