Product Name

Name: Minimum Essential Medium-Alpha (MEM-Alpha), with L-Glutamine, Ribonucleosides, Deoxyribonucleosides, without Ascorbic acid

Cat. No.: C3064-0500

Size: 500 mL

Product Description

Minimum Essential Medium Eagle (MEM) is a modified version of Eagle's Basal Medium (BME). It was developed by Harry Eagle to meet the specific nutritional needs of certain subtypes of HeLa cells and normal mammalian fibroblasts. MEM includes higher concentrations of amino acids in order to approximate the protein composition of cultured mammalian cells. MEM can be used with Earle's salt or Hank's, or it can be supplemented with non-essential amino acids (NEAAs). This medium can be further modified by eliminating calcium ions to promote the growth of suspension cell cultures.

This medium contains ribonucleosides and deoxyribonucleosides, but not any ascorbic acid. It is recommended that users consult the literature for the physiological growth requirements of different cell lines to supplement the relevant components of the medium.

Composition

Ingredients	mg/L	Ingredients	mg/L
INORGANIC SALTS			
Calcium chloride dihydrate	100.000	Sodium chloride	6800.000
Magnesium sulphate anhydrous	97.720	Sodium dihydrogen phosphate anhydrous	122.000
Potassium chloride	400.000		
AMINO ACIDS			
Glycine	50.000	L-Leucine	52.000
L-Alanine	25.000	L-Lysine hydrochloride	72.500
L-Arginine hydrochloride	126.000	L-Methionine	15.000
L-Asparagine monohydrate	50.000	L-Phenylalanine	32.000
L-Aspartic acid	30.000	L-Proline	40.000
L-Cysteine hydrochloride	100.000	L-Serine	25.000
L-Cystine dihydrochloride	31.300	L-Threonine	48.000
L-Glutamic acid	75.000	L-Tryptophan	10.000
L-Glutamine	292.000	L-Tyrosine disodium Salt	51.900
L-Histidine hydrochloride monohydrate	42.000	L-Valine	46.000
L-Isoleucine	52.000		
Vitamins			
Choline chloride	1.000	Pyridoxal hydrochloride	1.000

D-Biotin	0.100	Riboflavin	0.100
D-Ca-Pantothenate	1.000	Thiamine hydrochloride	1.000
Folic acid	1.000	Vitamin B12	1.360
Nicotinamide	1.000	i-Inositol	2.000
OTHERS			
2' Deoxyadenosine	10.000	Alpha lipoic acid	0.200
2' Deoxycytidine	11.000	Phenol red sodium salt	11.000
2' Deoxyguanosine	10.000	Sodium pyruvate	110.000
Adenosine	10.000	Sodium bicarbonate	2200.000
Cytidine	10.000	Thymidine	10.000
Guanosine	10.000	Uridine	10.000
D-glucose	1000.000		

Storage and Stability

The product should be kept at **2 - 8°C.**
The product is **light-sensitive** and therefore should not be left in the light.
Shelf life: 12 months from the date of manufacture.

Procedure

1. Take a bottle from the refrigerator at 2 - 8°C and read the label.
2. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
3. Pipette out the appropriate volume using an aseptic/sterile technique under a laminar-flow culture hood.
4. Add antibiotics or other nutrients if desired.

Quality Control

Minimum Essential Medium-Alpha (MEM-Alpha), with L-Glutamine, Ribonucleosides, Deoxyribonucleosides, without Ascorbic acid is tested for sterility, pH, osmolality, and endotoxin concentration. In addition, each batch is tested for cell growth performance.

Precaution and Disclaimer

For research use only, not for clinical diagnosis, and treatment.