

MEM with Earle's Salts, powder medium, with L-Glutamine, w/o Sodium Bicarbonate

General information

MEM is a commonly utilized cell culture medium that can support the growth of various cell types, whether they are adherent or suspension.

Product specifications

Appearance	Off-white to creamy white, homogenous powder
Solubility	Clear solution at 9.6 g/l
pH w/o Sodium Bicarbonate	5.60 – 6.20
pH with Sodium Bicarbonate	7.30 – 7.90
Osmolality w/o Sodium Bicarbonate	230 – 270 mOsm/kg
Osmolality with Sodium Bicarbonate	285 – 325 mOsm/kg
Endotoxin	< 5 EU/ml
Cell Culture	Tested
Storage	+2 °C to +8 °C, dry and protected from light
Use at	9.6 g/l
Add	2.2 g/l Sodium Bicarbonate
CO₂ concentration optimum for liquid medium	5.0%

Instructions for use

Preparation of 1 liter liquid medium:

1. Suspend 10.0 g in 900 ml tissue culture grade water with constant, gentle stirring until the powder is completely dissolved. Do not heat the water.
2. Add 3.7 g of sodium bicarbonate powder or 49.3 ml of 7.5 % sodium bicarbonate solution for 1 liter of medium and stir until dissolved.
3. Adjust the pH to 0.2 to 0.3 pH units below the desired pH using 1 N HCl or 1 N NaOH since the pH tends to rise during filtration.
4. Make up the final volume to 1000 ml with tissue culture grade water.
5. Sterilize the medium immediately by filtering through a sterile membrane filter with porosity of 0.22 micron or less, using positive pressure rather than vacuum to minimize the loss of carbon dioxide.
6. Aseptically add sterile supplements as required and dispense the desired amount of sterile medium into sterile containers.
7. Store liquid medium at +2 °C to +8 °C and in dark until use.

Formulation

Amino Acids

L-Arginine x HCl	126.00
L-Cystine x 2 HCl	31.30
L-Glutamine	292.00
L-Histidine x HCl x H ₂ O	42.00
L-Hydroxy-L-Proline	20.00
L-Isoleucine	52.00
L-Leucine	52.00
L-Lysine x HCl	72.50
L-Methionine	15.00
L-Phenylalanine	32.00
L-Threonine	48.00
L-Tryptophan	10.00
L-Tyrosine x 2 Na	51.90
L-Valine	46.00

Vitamins

Choline Chloride	1.00
D-Calcium Pantothenate	1.00
Folic Acid	1.00
myo-Inositol	2.00
Nicotinamide	1.00
Pyridoxal x HCl	1.00
Riboflavin	0.10
Thiamine x HCl	1.00

Inorganic Salts

Calcium Chloride x 2 H ₂ O	265.00
Magnesium Sulfate Anhydrous	97.72
Potassium Chloride	400.00
Sodium Chloride	6800.00
Sodium Dihydrogen Phosphate Anhydrous	122.00

Other Components

D-Glucose	1000.00
Phenol Red Sodium Salt	11.00

Precautions and disclaimer

This product is for research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Ordering information

Catalogue number	Pack size
LTPM-L07	10 L
LTPM-L08	50 L

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