

RPMI 1640, with L-Glutamine, powder medium, with 25 mM HEPES, w/o Sodium Bicarbonate

General information

With its unique composition containing high levels of vitamins and glutathione, RPMI 1640 medium is well-suited for promoting the growth of a wide range of cell types when compared to other media.

Product specifications

Appearance	Off-white to creamy white, homogenous powder
Solubility	Clear solution at 16.4 g/l
pH w/o Sodium Bicarbonate	6.40 – 7.00
pH with Sodium Bicarbonate	6.70 – 7.30
Osmolality w/o Sodium Bicarbonate	280 – 320 mOsm/kg
Osmolality with Sodium Bicarbonate	320 – 360 mOsm/kg
Endotoxin	< 5 EU/ml
Cell Culture	Tested
Storage	+2 °C to +8 °C, dry and protected from light
Use at	16.4 g/l
Add	2.0 g/l Sodium Bicarbonate
CO₂ concentration optimum for liquid medium	4.5%

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 HCl	241.00
L-Asparagine	50.00
L-Aspartic Acid	20.00
L-Cystine x 2 HCl	65.20
L-Glutamine	300.00
Glycine	10.00
L-Glutamic Acid	20.00
L-Histidine HCl	20.96
L-Hydroxy-L-Proline	20.00
L-Isoleucine	50.00
L-Leucine	50.00
L-Lysine x HCl	40.00
L-Methionine	15.00
L-Phenylalanine	15.00
L-Proline	20.00
L-Serine	30.00
L-Threonine	20.00
L-Tryptophan	5.00
L-Tyrosine x 2 Na 2 H ₂ O	28.83
L-Valine	20.00

Vitamins

p-Amino Benzoic Acid	1.00
D-Biotin	0.20
Choline Chloride	3.00
D-Calcium Pantothenate	0.25
Folic Acid	1.00
myo-Inositol	35.00
Nicotinamide	1.00
Pyridoxine x HCl	1.00
Riboflavin	0.20
Thiamine x HCl	1.00
Vitamin B12	0.005

Inorganic Salts

Calcium Nitrate x 4 H ₂ O	100.00
Magnesium Sulfate	48.84
Potassium Chloride	400.00
Sodium Chloride	6000.00
Sodium Phosphate Dibasic Anhydrous	800.00

Other Components

D-Glucose	2000.00
L-Glutathione Reduced	1.00
HEPES	5958.00
Phenol Red Sodium Salt	5.30

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-L11	10 L
LTPM-L12	50 L

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