

DATA SHEET

Rev.ver: 01

1. Identification

Product name RPMI-1640 w/ L-Glutamine and 25mM HEPES buffer
w/o Glucose, Phenol red and Sodium bicarbonate

Catalog.no CCMP121

2. Description

RPMI 1640 Medium was developed at Roswell Park Memorial Institute in 1966 by Moore and his co-workers. A modification of McCoy's 5A Medium, it was formulated to support lymphoblastoid cells in suspension culture, but it has since been shown to support a wide variety of cells that are anchorage dependent. Originally intended to be used with a serum supplement, RPMI 1640 has been shown to support several cell lines in the absence of serum. It has also been widely used in fusion protocols and in the growth of hybrid cells. This medium is suitable for culturing human normal and neoplastic leukocytes.

3. Product Specifications

Appearance	White Creamish Powder
CO ₂ concentration, optimum	5.0 %
Storage and shelf life	Store at +2°C to +8°C protected from light. Once opened, store at 4°C and use within 6-8 weeks.
Shipping conditions	Ambient

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4. Formulation

Components	Concentration mg/L
Amino Acids:	
L-Arginine	241.00
L-Asparagine H ₂ O	50.82
L-Aspartic Acid	20.00
L-Cystine 2HCl	65.20
Glycine	10.00
L-Glutamic Acid	20.00
L-Histidine HCl H ₂ O	20.960
L-Glutamine	300.00
L-Hydroxy-L-Proline	20.00
L-Isoleucine	50.00
L-Leucine	50.00
L-Lysine 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 2Na 2H ₂ O	28.83
L-Valine	20.00
Vitamins:	

Components	Concentration mg/L
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 HCl	1.00
Riboflavin	0.20
Thiamine HCl	1.00
Vitamin B12	0.005
Inorganic Salts:	
Ca(NO ₃) ₂ 4H ₂ O	100.00
MgSO ₄ 7 H ₂ O	48.840
KCl	400.00
NaCl	6000.00
Na ₂ HPO ₄	800.00
Other Components:	
HEPES	5958.00
L-Glutathione Reduced	1.00

Instructions for Use:

Preparation of 1-liter liquid medium

1. Suspend 14.4gms in 900ml tissue culture-grade water with constant, gentle stirring until the medium is completely dissolved. Do not heat the water.
2. It may be necessary to lower the pH to 4.0 with 1N HCl to completely dissolve this product. After it has dissolved completely, the pH can be raised to 7.2 with 1N NaOH prior to the addition of sodium bicarbonate.
3. Add 2.0gms of sodium bicarbonate powder or 26.67ml of 7.5% sodium bicarbonate solution for 1 liter of medium and stir until dissolved.
4. Adjust the pH to 0.2-0.3 pH units below the desired pH using 1N HCl or 1N NaOH since the pH tends to rise during filtration.
5. Make up the final volume to 1000ml with tissue culture grade water.
6. 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.
7. Aseptically add sterile supplements as required and dispense the desired amount of sterile medium into sterile containers.
8. Store liquid medium at +2°C to +8°C and in dark until use.

5. Precautions and Disclaimer

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