



### RPMI-1640 MEDIUM AUTO-MOD™

Without L-Glutamine and Sodium Bicarbonate  
Product Number **R7755**

#### Product Description

RPMI-1640 medium was developed by Moore et al., at Roswell Park Memorial Institute, hence the acronym RPMI. RPMI-1640 medium has been used for the culture of normal and neoplastic leukocytes

<b>Components</b>	<b>g/L</b>
Calcium Nitrate•4 H <sub>2</sub> O	0.1
Magnesium Sulfate (anhydrous)	0.04884
Potassium Chloride	0.4
Sodium Chloride	6.0
Sodium Phosphate Dibasic (anhydrous)	0.8
Succinic Acid•6H <sub>2</sub> O•2Na	0.1
Succinic Acid (free acid)	0.075
L-Arginine	0.2
L-Asparagine (anhydrous)	0.05
L-Aspartic Acid	0.02
L-Cystine•2HCl	0.0652
L-Glutamic Acid	0.02
Glycine	0.01
L-Histidine	0.015
Trans-4-Hydroxy-L-proline	0.02
L-Isoleucine	0.05
L-Leucine	0.05
L-Lysine•HCl	0.04
L-Methionine	0.015
L-Phenylalanine	0.015
L-Proline	0.02
L-Serine	0.03
L-Threonine	0.02
L-Tryptophan	0.005
L-Tyrosine	0.02
L-Valine	0.02
D-Biotin	0.0002
Choline Bitartrate	0.00544
Folic Acid	0.001
myo-Inositol	0.035
Niacinamide	0.001
p-Aminobenzoic Acid	0.001
D-Pantothenic Acid (hemicalcium)	0.00025
Pyridoxine•HCl	0.001
Riboflavin	0.0002
Thiamine•HCl	0.001
Vitamin B-12	0.000005
D-Glucose	2.0
Glutathione (reduced)	0.001
Phenol Red•Na	0.00318

#### Precautions and Disclaimer

##### REAGENT

For R&D use only. Not for drug, household or other uses.

#### Preparation Instructions

Powdered media are hygroscopic and should be protected from moisture. The entire contents of each package should be used after opening. Preparing a concentrated solution of medium is not recommended as precipitates may form. Supplements can be added prior to filtration or introduced aseptically to sterile medium.

1. Measure out 90% of final required volume of water. Water temperature should be 15-20°C.
2. While gently stirring the water, add the powdered medium. Stir until dissolved.
3. Rinse original package with a small amount of water to remove all traces of powder. Add to solution in step 2.
4. Add additional water and adjust the pH to 4.0. Bring the solution to final volume minus the volume of sodium bicarbonate and L-glutamine to be added in step 6.
5. Autoclave medium at 121°C [250°F] at 15 PSI for 15 minutes. Note: The performance of individual autoclaves may vary. We recommend validation of your system.
6. After cooling medium to 15-20°C add 26.7 ml of sterile sodium bicarbonate solution, 7.5% [w/v] and 10.25 ml of 200 mM sterile L-glutamine solution [Catalog No. G7513] for each liter of final volume of medium being prepared.
7. The final pH of this medium was formulated to be 6.9 ± 0.3. If necessary adjust the pH using sterile 1N HCl or 1N NaOH.
8. Medium can be autoclaved in final storage bottles or dispensed into appropriate sterile containers after autoclaving.

#### Storage and Stability

Store the dry powdered medium at 2-8°C under dry conditions and liquid medium at 2-8°C in the dark. Deterioration of the powdered medium may be recognized by any or all of the following: [1] color change, [2] granulation/clumping, [3] insolubility. Deterioration of the liquid medium may be recognized by any or all of the following: [1] pH change, [2] precipitate or particulates, [3] cloudy appearance [4] color change. The nature of supplements added may affect storage conditions and shelf life of the medium. Product label bears expiration date.

#### Procedure

##### MATERIALS REQUIRED BUT NOT PROVIDED

Water for tissue culture use [W3500]  
Sodium Bicarbonate Solution, 7.5% [S8761]  
1N Hydrochloric Acid [H9892]  
1N Sodium Hydroxide [S2770]  
Medium additives as required

**References**

1. Moore, G.E., Gerner, R.E. and Franklin, H.A., (1967).  
Culture of Normal Human Leukocytes. JAMA. 199, 519-524.

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