

Product information

Roswell Park Memorial Institute (RPMI) media are a series of media developed by Moore et al for the culture of human normal and neoplastic cells in vitro. RPMI-1640 is the most commonly used medium in the series. RPMI-1640 was developed as a refined version of earlier RPMI formulations (like RPMI-1630), with alterations to Amino acid concentrations and vitamin levels, and the use of a bicarbonate buffering system. The medium is typically supplemented with 5–20% Fetal bovine serum (FBS), although it is also capable of supporting certain cell types in serum-free conditions with appropriate supplementation. Our selection includes formulations with and without L-Glutamine, as well as products without the pH indicator Phenol red, for estrogen-sensitive applications.

RBRPMI01 is a RPMI 1640 variant supplemented with Glucose, Glutamine, Sodium bicarbonate and Phenol red. The media is formulated without Sodium pyruvate and HEPES buffer.

Storage temperature	2-8°C, protect from light
Shelf life	12 months

Applications

RPMI 1640 Medium was originally developed to culture human leukemic cells in suspension and as a monolayer. It has also been widely used in fusion protocols and in the growth of hybrid cells. Properly supplemented with serum or an adequate serum replacement, RPMI 1640 allows the cultivation of many cell types, especially human lymphocytes, Jurkat cells, HeLa cells, bone marrow cells, hybridomas and carcinomas.

Quality Control

Appearance	Orangish red, clear liquid
pH	7.0 -7.6
Osmolality	270–310 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 1.0 EU/ml
Cell culture test ³	Meets the requirements
Mycoplasma contamination ⁴	Negative

Note:

¹Sterility Testing (Bacterial and Fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

³Indicative cell line was seeded in complete control medium and complete test medium in a 96-well plate in triplicates and incubated at 37°C in a 5% CO₂ environment. Growth rates and viability of the cells in test medium must be comparable to the cultures grown in control medium.

⁴Mycoplasma test carried out using a real time PCR-based kit.

Composition

Components	Concentration (mg/L)
Amino Acids	
Glycine	10
L-Arginine	200
L-Asparagine	50
L-Aspartic acid	20
L-Cystine dihydrochloride	65
L-Glutamic acid	20
L-Glutamine	300
L-Histidine	15
L-Hydroxyproline	20
L-Isoleucine	50
L-Leucine	50
L-Lysine hydrochloride	40
L-Methionine	15
L-Phenylalanine	15
L-Proline	20
L-Serine	30
L-Threonine	20
L-Tryptophan	5
L-Tyrosine disodium salt dihydrate	29
L-Valine	20
Vitamins	
Folic acid	1
Biotin	0.2
Choline chloride	3
D-Calcium pantothenate	0.25
i-Inositol	35
Niacinamide	1
Para-aminobenzoic acid	1
Pyridoxine hydrochloride	1
Riboflavin	0.2
Thiamine hydrochloride	1
Vitamin B12	0.005

Components	Concentration (mg/L)
Inorganic Salts	
Calcium nitrate tetrahydrate	100
Magnesium sulfate (anhyd.)	48.84
Potassium chloride	400
Sodium bicarbonate	2000
Sodium chloride	6000
Sodium phosphate dibasic (anhyd.)	800
Other Components	
Glutathione (reduced)	1
D-Glucose (Dextrose)	2000
Phenol red sodium salt	5

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