

Product Name

Name: RPMI 1640, with L-Alanyl-L-Glutamine

Cat. No.: C3001-0500

Size: 500 mL

Product Description

Roswell Park Memorial Institute (RPMI) media are a series of media developed by Moore and colleagues for the culture of human normal and neoplastic cells *in vitro*. RPMI-1640 is the most commonly used medium in the series. It is a modification of McCoy's 5A medium and was specifically designed to support the growth of human lymphoblastoid cells in suspension culture. Presently the medium is extensively used for a wide range of anchorage-dependent cell lines. The medium needs to be supplemented with 5 - 20% fetal bovine serum (FBS). The medium is also known to support the growth of cells in the absence of serum, i.e., serum-free medium. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific to different cell lines. **Advantages of using L-Alanyl-L-Glutamine:** L-alanyl-L-glutamine is much more stable than L-glutamine, releasing less ammonia in culture, and improves cell viability and growth.

Composition

Ingredients	mg/L	Ingredients	mg/L
INORGANIC SALTS			
Calcium nitrate tetrahydrate	100.000	Sodium chloride	6000.000
Magnesium sulphate anhydrous	48.840	Sodium phosphate dibasic anhydrous	800.000
Potassium chloride	400.000		
AMINO ACIDS			
Glycine	10.000	L-Leucine	50.000
L-Arginine hydrochloride	241.000	L-Lysine hydrochloride	40.000
L-Asparagine	50.000	L-Methionine	15.000
L-Aspartic acid	20.000	L-Phenylalanine	15.000
L-Cystine dihydrochloride	65.200	L-Proline	20.000
L-Glutamic acid	20.000	L-Serine	30.000
L-Alanyl-L-Glutamine	445.92	L-Threonine	20.000
L-Histidine hydrochloride monohydrate	20.960	L-Tryptophan	5.000
L-Hydroxyproline	20.000	L-Tyrosine disodium salt	28.830
L-Isoleucine	50.000	L-Valine	20.000
Vitamins			
Choline chloride	3.000	Riboflavin	0.200
D-Biotin	0.200	Thiamine hydrochloride	1.000

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D-Ca-Pantothenate	0.250	Vitamin B12	0.005
Folic acid	1.000	i-Inositol	35.000
Niacinamide	1.000	p-Amino benzoic acid (PABA)	1.000
Pyridoxine hydrochloride	1.000		

OTHERS

D-Glucose	2000.000	Phenol red sodium salt	5.300
Glutathione reduced	1.000	Sodium bicarbonate	2000.000

Procedure

1. Take a bottle from the refrigerator at 2 - 8°C and read the label.
2. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
3. Pipette out the appropriate volume using an aseptic/sterile technique under a laminar-flow culture hood.
4. Add antibiotics, fetal bovine serum, or other nutrients if desired.

Quality Control

RPMI 1640 with L-Alanyl-L-Glutamine is tested for sterility, pH, osmolality, and endotoxin concentration. In addition, each batch is tested for cell growth performance using Vero cells.

Storage and Stability

The product should be kept at **2 - 8°C**.

The product is **light-sensitive** and therefore should not be left in the light.

Shelf life: 12 months from the date of manufacture.

Precaution and Disclaimer

For research use only, not for clinical diagnosis, and treatment.