

### Technical Information

#### RPMI-1640

With 25mM HEPES buffer and Sodium bicarbonate Without L-Glutamine 1X Liquid cell Culture Medium

#### Product Code: AL1060

**Application:** 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. A modification of McCoy's 5A medium, the medium 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 dependant cell lines. The medium needs to be supplemented with 5-20% fetal bovine serum. The medium is also known to support growth of cells in the absence of serum.

AL1060 is modified RPMI-1640 medium supplemented with 25mM HEPES buffer and sodium bicarbonate. It does not contain L-glutamine. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37°C prevents the initial rise in pH that tends to occur at the initiation of a culture and increases the buffering capacity of the medium. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

#### Composition\*\*

Ingredients	mg/Litre
<b>INORGANIC SALTS</b>	
Calcium nitrate tetrahydrate	100.000
Disodium hydrogen phosphate anhydrous	800.000
Magnesium sulphate anhydrous	48.840
Potassium chloride	400.000
Sodium bicarbonate	2000.000
Sodium chloride	6000.000
<b>AMINO ACIDS</b>	
Glycine	10.000
L-Arginine hydrochloride	241.000
L-Asparagine anhydrous	50.000
L-Aspartic acid	20.000
L-Cystinedihydrochloride	65.200
L-Glutamic acid	20.000
L-Histidine hydrochloride	20.960
L-Hydroxyproline	20.000
L-Isoleucine	50.000
L-Leucine	50.000
L-Lysine hydrochloride	40.000
L-Methionine	15.000
L-Phenylalanine	15.000
L-Proline	20.000
L-Serine	30.000
L-Threonine	20.000
L-Tryptophan	5.000

L-Tyrosine disodium salt	28.830
L-Valine	20.000
<b>VITAMINS</b>	
Choline chloride	3.000
D-Biotin	0.200
D-Ca-Pantothenate	0.250
Folic acid	1.000
Niacinamide	1.000
Pyridoxine hydrochloride	1.000
Riboflavin	0.200
Thiamine hydrochloride	1.000
Vitamin B12	0.005
i-Inositol	35.000
p-Amino benzoic acid (PABA)	1.000
<b>OTHERS</b>	
D-Glucose	2000.000
Glutathione reduced	1.000
HEPES Buffer	5958.000
Phenol red sodium salt	5.300

### Methodology

1. Add 10.3ml of 200mM L-glutamine (TCL1012) for 1 litre of medium.

### Material required but not provided

L-Glutamine solution 200mM (TCL1012)

### Quality control

#### Appearance

Orange colored, clear solution.

#### pH

7.00 -7.60

#### Osmolality in mOsm/Kg H<sub>2</sub>O

320.00 -360.00

#### Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

#### Cultural Response

The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts and comparing it with a control medium through minimum three subcultures.

#### Endotoxin Content

NMT 5EU/ml

### Storage and Shelf Life

Store at 2-8°C away from bright light. Shelf life is 18 months. Use before expiry date given on the product label.

### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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