

Technical Information

RPMI-1640

With 1mM Sodium pyruvate, 2mM L-Glutamine, 4.5gms Glucose per liter, 10mM HEPES buffer, and 2gms per liter Sodium bicarbonate 1X Liquid Cell Culture Medium

Product Code: AL1162A

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.

AL1162A is modified RPMI-1640 medium supplemented with L-glutamine, 4.5gms glucose, 10mM HEPES buffer, sodium pyruvate and sodium bicarbonate. 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 |
|------------------------------------|----------|
| INORGANIC SALTS | |
| Calcium nitrate tetrahydrate | 100.000 |
| Magnesium sulphate anhydrous | 48.840 |
| Potassium chloride | 400.000 |
| Sodium bicarbonate | 2000.000 |
| Sodium chlorides | 6000.000 |
| Sodium phosphate dibasic anhydrous | 800.000 |
| AMINO ACIDS | |
| Glycine | 10.000 |
| L-Arginine hydrochloride | 241.000 |
| L-Asparagine | 50.000 |
| L-Aspartic acid | 20.000 |
| L-Cystinedihydrochloride | 65.200 |
| L-Glutamic acid | 20.000 |
| L-Glutamine | 300.000 |
| 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 (Allo free) | 20.000 |
| L-Tryptophan | 5.000 |
| L-Tyrosine sodium salt | 28.830 |
| L-Valine | 20.000 |
| VITAMINS | |
| 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 |
| l-Inositol | 35.000 |
| p-Amino benzoic acid (PABA) | 1.000 |
| OTHERS | |
| D-Glucose | 4500.000 |
| Glutathione reduced | 1.000 |
| HEPES Buffer | 2383.000 |
| Phenol red sodium salt | 5.300 |
| Sodium pyruvate | 110.000 |

Quality Control

Appearance

Orangish red colored, clear solution.

pH

7.00 -7.60

Osmolality in mOsm/Kg H₂O

280.00 -320.00

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 12 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.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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