

Technical Information

MiGlutaXL RPMI-1640

With L-Alanyl-L-Glutamine, HEPES buffer and Sodium bicarbonate 1X Liquid Cell Culture Medium

Product Code: AL1060G

Application:- MiGlutaXL medium contains the stabilised dipeptide form of L-Glutamine, L-Alanyl-L-Glutamine. MiGlutaXL medium offers several advantages over the conventional glutamine containing media. Dipeptide form prevents the intramolecular cyclization reaction, thus preventing toxic build-up of ammonia. L-Alanyl-L-Glutamine incorporates L-Alanine that protects the alpha amino acid group. Aminopeptidases within the cell break the dipeptide, gradually releasing both L-Glutamine and L-Alanine for use by the cell. The gradual release of L-Glutamine obviates the need to supplement L-Glutamine frequently and allows liquid media to be stored at 4°C for longer periods. AL1060G is MiGlutaXL RPMI-1640 medium supplemented with 25mM HEPES buffer, L-alanyl-L-glutamine 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 | 100.00 |
| Disodium hydrogen phosphate anhydrous | 800.00 |
| Magnesium sulphate anhydrous | 48.840 |
| Potassium chloride | 400.000 |
| Sodium bicarbonate | 2000.000 |
| Sodium chloride | 6000.000 |
| AMINO ACIDS | |
| Glycine | 10.000 |
| L-Alanyl-L-Glutamine | 446.00 |
| L-Arginine hydrochloride | 241.00 |
| L-Asparagine anhydrous | 50.000 |
| L-Aspartic acid | 20.000 |
| L-Cystine dihydrochloride | 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 dihydrate | 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 |
| i-Inositol | 35.000 |
| p-Amino benzoic acid (PABA) | 1.000 |

OTHERS

| | |
|---------------------|----------|
| D-Glucose | 2000.000 |
| Glutathione reduced | 1.000 |
| HEPES Buffer | 5958.00 |
| Phenol red sodium | 5.300 |

Quality control

Appearance

Orangish colored, clear solution.

pH

7.00 -7.60

Osmolality in mOsm/Kg H₂O

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.
- 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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