

Medium 199

With Hank's salts

Without L-Glutamine and Sodium bicarbonate

10X Liquid Cell Culture Medium

Product Code: AL192

Product Description :

Medium 199 was the first nutritionally defined medium developed by Morgan, Morton, and Parker in 1950. This complex medium was formulated specifically for nutritional studies on primary chick embryo fibroblasts in the absence of any additives. It was observed that explanted tissue could survive in Medium 199 without serum but long term cultivation of cells required supplementation of the medium with serum.

Medium 199 is formulated with either Hank's salts or Earle's salts. The medium when supplemented with serum can be used for growth of a wide variety of cells. Medium 199 is presently used for the maintenance of non-transformed cells, vaccine and virus production and primary explants of epithelial cells.

AL192 is 10X Medium 199 with Hank's salts. It does not contain L-glutamine and sodium bicarbonate. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

Composition :

| Ingredients | mg/L |
|--------------------------------------|-----------|
| INORGANIC SALTS | |
| Calcium chloride dihydrate | 1850.000 |
| Ferric nitrate nonahydrate | 7.200 |
| Magnesium sulphate anhydrous | 977.200 |
| Potassium chloride | 4000.000 |
| Potassium phosphate monobasic | 600.000 |
| Sodium acetate anhydrous | 500.000 |
| Sodium chloride | 80000.000 |
| Sodium phosphate dibasic | 478.600 |
| AMINO ACIDS | |
| Glycine | 500.000 |
| L-Alanine | 250.000 |
| L-Arginine hydrochloride | 700.000 |
| L-Aspartic acid | 300.000 |
| L-Cysteine hydrochloride monohydrate | 1.000 |
| L-Cystine dihydrochloride | 260.000 |

| | |
|---------------------------------------|-----------|
| L-Glutamic Acid | 670.000 |
| L-Histidine hydrochloride monohydrate | 220.000 |
| L-Hydroxyproline | 100.000 |
| L-Isoleucine | 200.000 |
| L-Leucine | 600.000 |
| L-Lysine hydrochloride | 700.000 |
| L-Methionine | 150.000 |
| L-Phenylalanine | 250.000 |
| L-Proline | 400.000 |
| L-Serine | 250.000 |
| L-Threonine | 300.000 |
| L-Tryptophan | 100.000 |
| L-Tyrosine disodium salt | 576.600 |
| L-Valine | 250.000 |
| VITAMINS | |
| Ascorbic acid | 0.500 |
| Calciferol | 1.000 |
| Choline chloride | 5.000 |
| D-Biotin | 0.1 |
| D-Ca-Pantothenate | 0.100 |
| DL-Tocopherol phosphate Disodium Salt | 0.100 |
| Folic acid | 0.100 |
| Menadione | 0.100 |
| Nicotinamide | 0.25 |
| Nicotinic acid | 0.25 |
| Pyridoxal hydrochloride | 0.25 |
| Pyridoxine hydrochloride | 0.25 |
| Retinol Acetate | 1.400 |
| Riboflavin | 1.000 |
| Thiamine hydrochloride | 0.100 |
| i-Inositol | 0.500 |
| p-Amino benzoic acid (PABA) | 0.500 |
| OTHERS | |
| Adenine sulphate | 100.000 |
| Adenosine monophosphate | 2.000 |
| Adenosine triphosphate | 10.000 |
| Cholesterol | 2.000 |
| Deoxyribose | 5.000 |
| Glucose | 10000.000 |
| Glutathione reduced | 0.500 |
| Guanine hydrochloride | 3.000 |

| | |
|------------------------|---------|
| Hypoxanthine | 3.54 |
| Phenol red sodium salt | 150.000 |
| Polysorbate 80 | 49.000 |
| Ribose | 5.000 |
| Thymine | 3.000 |
| Uracil | 3.000 |
| Xanthine | 3.44 |

Directions :

1. Add 4.7ml of 7.5% sodium bicarbonate solution (TCL013) and 3.42ml of 200mM L-glutamine (TCL012) for 1 litre of 1X medium prior to use.

Material required but not provided :

L-Glutamine solution 200mM (TCL012)
Sodium bicarbonate solution 7.5% (TCL013)
Tissue culture grade water (TCL010)

Quality Control:

Appearance

Red colored, clear solution

pH

4.20 - 4.40

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.

Endotoxin Content

NMT 1EU/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.

Revision : 0 / 2015

Disclaimer :

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