Medium 199
With Earle’s salts and Sodium bicarbonate
Without L-Glutamine
1X Liquid Cell Culture Medium

Product Code: AL014

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.

AL014 is Medium 199 with Earle’s salts and sodium bicarbonate. It does not contain L-glutamine. 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  265.000
Ferric nitrate nonahydrate  0.720
Magnesium sulphate anhydrous  97.720
Potassium chloride  400.000
Sodium acetate anhydrous  50.000
Sodium bicarbonate  2200.000
Sodium chloride  6800.000
Sodium phosphate monobasic  122.000

AMINO ACIDS
Glycine  50.000
L-Alanine  25.000
L-Arginine hydrochloride  70.000
L-Aspartic acid  30.000
L-Cysteine hydrochloride monohydrate  0.100
L-Cystine dihydrochloride  26.000
L-Glutamic Acid  67.000
L-Histidine hydrochloride monohydrate  22.000
L-Hydroxyproline  10.000
L-Isoleucine  20.000
L-Leucine  60.000
L-Lysine hydrochloride monohydrate  70.000
L-Methionine  15.000
L-Phenylalanine  25.000
L-Proline  40.000
L-Serine  25.000
L-Threonine  30.000
L-Tryptophan  10.000
L-Tyrosine disodium salt  57.660
L-Valine  25.000
VITAMINS
Ascorbic acid  0.05
Calciferol  0.100
Choline chloride  0.500
D-Biotin  0.01
D-Ca-Pantothenate  0.010
DL-Tocopherol phosphate Disodium Salt  0.010
Folic acid  0.010
Menadione  0.010
Nicotinamide  0.025
Nicotinic acid  0.025
Pyridoxal hydrochloride  0.025
Pyridoxine hydrochloride  0.025
Retinol Acetate  0.140
Riboflavin  0.010
Thiamine hydrochloride  0.010
i-Inositol  0.050
p-Amino benzoic acid (PABA)  0.050
OTHERS
Adenine sulphate  10.000
Adenosine monophosphate  0.200
Adenosine triphosphate  1.000
Cholesterol  0.200
Deoxyribose  0.500
Glucose  1000.000
Glutathione reduced  0.050
Guanine hydrochloride  0.300
Hypoxanthine 0.354
Phenol red sodium salt 15.000
Polysorbate 80 4.900
Ribose 0.500
Thymine 0.300
Uracil 0.300
Xanthine 0.344

Directions:
1. Add 3.42ml of 200mM L-glutamine (TCL012) for 1 litre of medium.

Material required but not provided:
L-Glutamine solution 200mM (TCL012)

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 18 months.
Use before expiry date given on the product label.

Revision: 1 / 2011

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