

## Medium 199

With Earle's salts, L-Glutamine and Sodium bicarbonate

2X Liquid Cell Culture Medium

**Product Code: AL258A**

### 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.

AL258A is 2X Medium 199 with Earle's salts, 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
<b>INORGANIC SALTS</b>	
Calcium chloride dihydrate	530.000
Ferric nitrate nonahydrate	1.440
Magnesium sulphate anhydrous	195.44
Potassium chloride	800.000
Sodium acetate anhydrous	100.00
Sodium bicarbonate	4400.000
Sodium chloride	13600.00
Sodium phosphate monobasic	244.000
<b>AMINO ACIDS</b>	
Glycine	100.00
L-Alanine	50.000
L-Arginine hydrochloride	140.00
L-Aspartic acid	60.000
L-Cysteine hydrochloride monohydrate	0.200
L-Cystine dihydrochloride	52.000
L-Glutamic Acid	134.000
L-Glutamine	200.000

L-Histidine hydrochloride monohydrate	44.000
L-Hydroxyproline	20.000
L-Isoleucine	40.000
L-Leucine	120.00
L-Lysine hydrochloride	140.00
L-Methionine	30.000
L-Phenylalanine	50.000
L-Proline	80.000
L-Serine	50.000
L-Threonine	60.000
L-Tryptophan	20.000
L-Tyrosine disodium salt	115.32
L-Valine	50.000
<b>VITAMINS</b>	
Ascorbic acid	0.10
Calciferol	0.200
Choline chloride	1.000
D-Biotin	0.02
D-Ca-Pantothenate	0.020
DL-Tocopherol phosphate Disodium Salt	0.020
Folic acid	0.020
Menadione	0.020
Nicotinamide	0.050
Nicotinic acid	0.050
Pyridoxal hydrochloride	0.050
Pyridoxine hydrochloride	0.050
Retinol Acetate	0.280
Riboflavin	0.020
Thiamine hydrochloride	0.020
i-Inositol	0.100
p-Amino benzoic acid (PABA)	0.100
<b>OTHERS</b>	
Adenine sulphate	20.000
Adenosine monophosphate	0.400
Adenosine triphosphate	2.000
Cholesterol	0.400
Deoxyribose	1.000
Glucose	2000.000
Glutathione reduced	0.100
Guanine hydrochloride	0.600

Hypoxanthine	0.708
Phenol red sodium salt	30.000
Polysorbate 80	9.800
Ribose	1.000
Thymine	0.600
Uracil	0.600
Xanthine	0.688

## Quality Control:

### Appearance

Orangish red colored, clear solution.

### pH

Value

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

Value

### 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 12 months.

Use before expiry date given on the product label.

Revision : 1 / 2015

### Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.