

# M-199 Dry Powder Media

Cat# CM1021– 1 L / CM1022—1 L\*10

Storage at 4 °C

## INTRODUCTION

M199 (Media 199) originally used in nutritional studies of chicken embryo fibroblasts, it has been widely used in the culture of various animal cells, including some non-mammalian cells. M199 is especially suitable for the culture of untransformed cells, rat pancreatic epithelial cells and mouse lens tissues, also used in virology and vaccine production. Compared with other basic Media, M199 contains unique ingredients, including adenine, adenosine, hypoxanthine, thymine, and other vitamins. There are two kinds of equilibrium salt (earle's salt and hank's salt) in M199. Earle's salt is often used in CO<sub>2</sub> environment, hank's salt is used in non-CO<sub>2</sub> environment. This product contains many kinds of amino acids, vitamins, inorganic salts and other ingredients for cell culture, but does not contain protein, lipids or any growth factors. Therefore, the product should be used with serum or serum-free additives. Serum supplements are required before use, usually with 10% Fetal Bovine Serum (FBS) or **Specsure® Bovine Growth Serum**. Uses sodium bicarbonate buffer system (3.7 g/L), and therefore requires a 5% CO<sub>2</sub> environment to maintain physiological pH.

Sterility	Sterile-filtered
Form	Powder
Application(s)	Cell culture/ mammalian: suitable
Impurities	Endotoxin, tested
Brand	ACE Biolabs
Components	HEPES (-) L-glutamine (+) D-glucose (1000 mg/ml) Phenol red (+) Sodium bicarbonate (-)
Storage temp	2-8 °C

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No	Component	CM1021– 1 L	CM1022—1L*10
	M199 Dry Powder Media	1 pack	1L x 10 packs

**COMPOSITION**

<b>INORGANIC SALTS</b>	<b>mg/L</b>
CaCl <sub>2</sub> (anhyd.)	200
Fe(NO <sub>3</sub> )-9H <sub>2</sub> O	0.7
MgSO <sub>4</sub> (anhydrous)	97.67
KCl	400
NaCl	6800
NaH <sub>2</sub> PO <sub>4</sub> -H <sub>2</sub> O	140
<b>AMINO ACIDS</b>	
L-Aspartic Acid	30
L-Cysteine·2HCl	26
L-Glutamic Acid	75
L-Glutamine	100
Glycine	50
L-Isoleucine	40
L-Leucine	60
L-Lysine·HCl	70
L-Methionine	15
L-Phenylalanine	25
L-Proline	40
L-Serine	25
L-Threonine	30
L-Tryptophan	10
L-Tyrosine·2Na·2H <sub>2</sub> O	58
L-Valine	25
L-Alanine	25
L-Arginine hydrochloride	70
L-Cysteine hydrochloride-H <sub>2</sub> O	0.1
L-Histidine hydrochloride-H <sub>2</sub> O	21.88
L-Hydroxyproline	10
<b>VITAMINS</b>	
Ascorbic Acid	0.05
Biotin	0.01
Choline Chloride	0.5
D-Calcium pantothenate	0.01
Folic Acid	0.01
Menadione (Vitamin K3)	0.01

Niacinamide	0.025
Nicotinic acid (Niacin)	0.025
Para-Aminobenzoic Acid	0.05
Pyridoxal hydrochloride	0.025
Pyridoxine hydrochloride	0.025
Riboflavin	0.01
Thiamine hydrochloride	0.01
Vitamin A (acetate)	0.1
Vitamin D2 (Calciferol)	0.1
alpha Tocopherol phos. Na salt	0.01
i-Inositol	0.05
<b>OTHER</b>	
Adenine sulfate	10
Adenosine 5'-phosphate	0.2
Adenosine 5'-triphosphate	1
Cholesterol	0.2
D-Glucose	1000
Deoxyribose	0.5
Glutathione (reduced)	0.05
Guanine hydrochloride	0.3
Hypoxanthine Na	0.354
Phenol Red	20
Ribose	0.5
Sodium Acetate	50
Thymine	0.3
Tween 80®	20
Uracil	0.3
Xanthine-Na	0.3

## **RELATED PRODUCTS**

Specsure Bovine Growth Serum	ACE002	500 ml
MEM (Minimum Essential Media)	CM1005	500 ml
MEM (Minimum Essential Media), Dry Powder Media	CM1006	1 L
MEM (Minimum Essential Media), Dry Powder Media	CM1007	10 x 1L
DMEM (Dulbecco's modified minimal essential Media, DMEM )	CM1008	500 ml
DMEM (Dulbecco's modified minimal essential Media, DMEM), Dry Powder Media	CM1009	1 L
DMEM (Dulbecco's modified minimal essential Media, DMEM), Dry Powder Media	CM1010	10 x 1L
Ham's F-12K Media	CM1011	500 ml
Ham's F-12K Dry Powder Media	CM1012	1 L
Ham's F-12K Dry Powder Media	CM1013	10 x 1L
DMEM/F12 Media	CM1014	500 ml
DMEM/F12 Dry Powder Media	CM1015	1 L
DMEM/F12 Dry Powder Media	CM1016	10 x 1L
RPMI-1640 Media	CM1017	500 ml
RPMI-1640 Dry Powder Media	CM1018	1 L
RPMI-1640 Dry Powder Media	CM1019	10 x 1L
M-199 Media	CM1020	500 ml
M-199 Dry Powder Media	CM1021	1 L
M-199 Dry Powder Media	CM1022	10 x 1L