M 199 (Medium 199)

With Earle's Salts | With L-Glutamine | With 25 mM HEPES | With Sodium Bicarbonate

Cat. No. CPM112 | Size: 500 ML / 1L

1. Product Description

Medium 199 was originally developed as a serum-free medium for primary culture, particularly suitable for the cultivation of non-transformed cells. Subsequently, with the addition of serum, it has been widely used for virus research, vaccine production, and the cultivation of various cell types. This product (Cat. No. CPM112) contains HEPES, providing more effective pH buffering capacity.

2. Composition

Amino Acids	mg/L	Vitamins	mg/L	Inorganic Salts	mg/L
L-Alanine	25.00	Ascorbic Acid	0.05	$CaCl_2$	200.00
L-Arginine-HCl	70.00	α-Tocopherol Phosphate-Na	0.01	$Fe(NO_3)_3 \cdot 9H_2O$	0.72
L-Aspartic Acid	30.00	Biotin	0.01	KCl	400.00
L-Cysteine-HCl·H_2O	0.10	Calciferol	0.10	$MgSO_4$	98.00
L-Cystine-2HCl	26.00	D-Ca Pantothenate	0.01	NaCl	6000.00
L-Glutamic Acid	75.00	Choline Chloride	0.50	$NaH_2PO_4 \cdot H_2O$	140.00
L-Glutamine	100.00	Folic Acid	0.01	$NaHCO_3$	2200.00
Glycine	50.00	i-Inositol	0.05	**Others**	
L-Histidine-HCl·H_2O	22.00	Menadione (sodium bisulfite)	0.01	Adenine Sulfate	10.00
L-Isoleucine	40.00	Niacin	0.025	Adenosine-5-triphosphate	1.00
L-Leucine	60.00	Niacinamide	0.025	Adenosine-5-phosphate	0.20
L-Lysine-HCl	70.00	Para-Aminobenzoic Acid	0.05	Cholesterol	0.20
L-Methionine	15.00	Pyridoxal-HCl	0.025	2-Deoxy-D-ribose	0.50
L-Phenylalanine	25.00	Pyridoxine-HCl	0.025	D-Glucose	1000.00
L-Proline	40.00	Riboflavin	0.01	Glutathione (reduced)	0.05
L-Serine	25.00	Thiamine-HCl	0.01	Guanine-HCl	0.30
L-Threonine	30.00	Vitamin A (acetate)	0.14	HEPES	5958.00
L-Tryptophan	10.00			Hypoxanthine, Sodium	0.40
L-Tyrosine-2Na·$2H_2O$	58.00			Phenol Red	20.00
L-Valine	25.00			Ribose / Sodium Acetate	0.50 / 50.00

3. Product Quality Specifications

Appearance	pH	Osmolality	Endotoxin	Sterility
Red clear liquid	pH 7.3 ± 0.3	299 ± 15 mOsm/kg H_2O	< 1 EU/ml	Sterile

4. Storage Conditions and Precautions

Store at refrigerated conditions (2~8°C) protected from direct light. The expiration date is indicated on the product label; do not use expired products. Product degradation during storage may appear as precipitates, floating particles, turbidity, or color change; discard if any are observed. Storing attached to the inner wall of the refrigerator where the temperature is relatively low (0°C) may cause denaturation due to ice crystals, and addition of extra substances may also cause denaturation.

5. Usage Instructions and Precautions

This product is a sterile solution. Open the cap only in a sterile environment (e.g., a clean bench) using aseptic technique. It is recommended to use the entire contents after opening; otherwise, aliquot into a suitable sterile container and store at refrigerated conditions (2~8°C) protected from direct light.