DMEM (High) (HEPES) (No Phenol Red)

(Dulbecco's Modified Eagle's Medium, High Glucose) With 4.5 g/L D-Glucose, 4 mM L-Glutamine, 25 mM HEPES & Sodium Bicarbonate, Without Phenol Red

Cat. No. CPD007 | Size: 500 ML / 1L

1. Product Description

An improved version of BME, DMEM is currently the most widely used medium, containing 4 times more amino acids and vitamins than BME. Initially developed for culturing embryonic mouse cells with 1.0 g/L D-Glucose, it subsequently incorporated 4.5 g/L D-Glucose and is used for culturing various cell lines including HeLa, 293, Cos-7, and PC-1, as well as primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells. This product contains 25 mM HEPES for more effective pH buffering capacity and lacks phenol red, making it suitable for cultures where phenol red must be excluded.

2. Composition

Amino Acids	mg/L
L-Arginine-HCl	84.0
L-Cystine-2HCl	63.0
L-Glutamine	584.0
Glycine	30.0
L-Histidine-HCl-H_2O	42.0
L-Isoleucine	105.0
L-Leucine	105.0
L-Lysine-HCl	146.0
L-Methionine	30.0
L-Phenylalanine	66.0
L-Serine	42.0
L-Threonine	95.0
L-Tryptophan	16.0
L-Tyrosine-2Na	104.0
L-Valine	94.0

Vitamins & Salts	mg/L
D-Ca Pantothenate	4.0
Choline Chloride	4.0
Folic Acid	4.0
i-Inositol	7.2
Niacinamide	4.0
Pyridoxine-HCl	4.0
Riboflavin	0.4
Thiamine-HCl	4.0
Inorganic Salts	**mg/L**
$CaCl_2$	200.0
$Fe(NO_3)_3 \cdot 9H_2O$	0.1
KCl	400.0
$MgSO_4$	97.67
NaCl	4750.0
$NaHCO_3$	3700.0
$NaH_2PO_4 \cdot H_2O$	125.0

Others	mg/L
D-Glucose	4500.0
HEPES	5958.0
Phenol Red	-
Sodium Pyruvate	-

3. Product Quality Specifications

Appearance	pH	Osmolality	Endotoxin	Sterility
Light yellow clear liquid	pH 7.3 ± 0.3	324 ± 16 mOsm/kg H_2O	<1 EU/mL	Sterile

4. Storage Conditions and Precautions

Store at refrigerated temperatures (2~8°C) protected from direct light. The expiration date is indicated on the product label; do not use expired products. Product degradation may appear as precipitates, floating particles, turbidity, or color change; discard if any are observed. Storing against the inner walls of a refrigerator where temperatures may approach 0°C can cause degradation due to ice crystal formation. The addition of extra substances may also cause degradation.

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 refrigerated (2~8°C).