Stable DMEM, High, Pyruvate

(Stable Dulbecco's Modified Eagle's Medium, High Glucose) With 4.5 g/L D-Glucose, Stable L-Glutamine, Sodium Pyruvate & Sodium Bicarbonate

Cat. No. CPD012 | 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. In particular, this product (Cat. No. CPD012) contains L-alanyl-L-glutamine in the same amount (4 mM) instead of L-glutamine, making it stable even under culture conditions (37°C), continuously supplying N-sources, and minimizing cell damage caused by L-glutamine degradation.

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	6400.0
$NaHCO_3$	3700.0
$NaH_2PO_4 \cdot H_2O$	125.0

Others	mg/L
L-Alanyl-L-Glutamine	862.00
D-Glucose	4500.0
HEPES	-
Phenol Red	15.0
Sodium Pyruvate	110.0

3. Product Quality Specifications

Appearance	pH	Osmolality	Endotoxin	Sterility
Red clear liquid	pH 7.3 ± 0.3	339 ± 17 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).