DMEM/F12 (Dulbecco's Modified Eagle's Medium/Ham's F12, 1:1 Mixture)

With 15 mM HEPES, Sodium Bicarbonate, Without L-Glutamine

Cat. No. CPF007 | Size: 500 ML / 1L

1. Product Description

DMEM/F12 Medium is a 1:1 mixture of DMEM and Ham's F12, containing not only the high concentrations of glucose, amino acids, and vitamins found in DMEM, but also various components of Ham's F12. It is used for culturing various cells such as MDCK, glial cells, fibroblasts, and human endothelial cells. Because Ham's F12 Nutrient Mixture itself was developed as a serum-free medium, DMEM/F12 is widely used as a basal medium for culturing cells under reduced serum or serum-free conditions. This product (Cat. No. DF12-007) contains 15 mM HEPES for a more effective pH buffering effect. In addition, L-Glutamine is not included and must be added as needed.

2. Composition

Amino Acids	mg/L
L-Alanine	4.45
L-Arginine-HCl	147.50
L-Asparagine-H_2O	7.50
L-Aspartic Acid	6.65
L-Cysteine-HCl-H_2O	17.56
L-Cystine-2HCl	31.29
L-Glutamic Acid	7.35
L-Glutamine	-
Glycine	18.75
L-Histidine-HCl-H_2O	31.48
L-Isoleucine	54.47
L-Leucine	59.05
L-Lysine-HCl	91.25
L-Methionine	17.24
L-Phenylalanine	35.48
L-Proline	17.25
L-Serine	26.25
L-Threonine	53.45
L-Tryptophan	9.02
L-Tyrosine-2Na-2H_2O	55.79
L-Valine	52.85

Vitamins & Salts	mg/L
Biotin	0.0035
D-Ca Pantothenate	2.24
Choline Chloride	8.98
Folic Acid	2.65
i-Inositol	12.60
Niacinamide	2.02
Pyridoxine-HCl	2.00
Riboflavin	0.219
Thiamine-HCl	2.17
Vitamin B12	0.68
Inorganic Salts	**mg/L**
$CaCl_2$	116.60
$CuSO_4 \cdot 5H_2O$	0.0013
$Fe(NO_3)_3 \cdot 9H_2O$	0.05
$FeSO_4 \cdot 7H_2O$	0.417
KCl	311.80
$MgCl_2$	28.64
$MgSO_4$	48.84
Na_2HPO_4	71.02
NaCl	6995.50
$NaH_2PO_4 \cdot H_2O$	62.50
$NaHCO_3$	1200.00
$ZnSO_4 \cdot 7H_2O$	0.432

Others	mg/L
D-Glucose	3151.00
HEPES	3574.50
Hypoxanthine, Sodium	2.39
Linoleic Acid	0.042
Lipoic Acid	0.105
Phenol Red	8.10
Putrescine-2HCl	0.081
Sodium Pyruvate	55.00
Thymidine	0.365

3. Product Quality Specifications

Appearance	pH	Osmolality	Endotoxin	Sterility
Red clear liquid	pH 7.3 ± 0.3	305 ± 15 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).