

★ Storage

Store at 2 -8 °C.

✈ Contents

- Product Manual
- DMEM/Ham's F-12, 1:1 Mixture

ALL PRODUCTS SOLD BY GenDEPOT ARE INTENDED FOR RESEARCH USE ONLY UNLESS OTHERWISE INDICATED. THIS PRODUCT IS NOT INTENDED FOR DIAGNOSTIC OR DRUG PURPOSE

★ Shipping Condition

Ship at ambient

★ Introduction

Since Harry Eagle's first reports, studies have been underway to determine the media requirements for individual cell types. The medium found to be most satisfactory for these studies as a 1:1 mixture of Dulbecco's Modified Eagle's Medium (DMEM) and Ham's F-12 Nutrient Mixture. To help compensate for the buffering capacity lost with the removal of serum, HEPES has been added in some modifications at a final concentration of 15 mM.

★ Formulation

Amino Acids	mg/L
Glycine (C ₂ H ₅ NO ₂)	18.75
L-Alanine(C ₃ H ₇ NO ₂)	4.45
L-Arginine, Hydrochloride(C ₆ H ₁₄ N ₄ O ₂ .HCl)	147.50
L-Asparagine, Monohydrate(C ₄ H ₈ N ₂ O ₃ .HCl)	7.50
L-Aspartic Acid(C ₄ H ₇ NO ₄)	6.65
L-Cysteine, Hydrochloride, Mono(C ₄ H ₇ NO ₂ .HCl.H ₂ O)	17.56
L-Cystine, Dihydrochloride(C ₆ H ₁₂ N ₂ O ₄ S ₂ .2HCl)	31.29
L-Glutamic Acid(C ₅ H ₉ NO ₄)	7.35
L-Glutamine(C ₅ H ₁₀ N ₂ O ₃)	365.00
L-Histidine(C ₆ H ₉ N ₃ O ₂ .HCl.H ₂ O)	31.48
L-Isoleucine(C ₆ H ₁₃ NO ₂)	54.47
L-Leucine(C ₆ H ₁₃ NO ₂)	59.05
L-Lysine, Hydrochloride(C ₆ H ₁₄ N ₂ O ₂ .HCl)	91.25
L-Methionine(C ₅ H ₁₁ NO ₂ S)	17.24
L-Phenylalanine(C ₉ H ₁₁ NO ₂)	35.48
L-Serine(C ₃ H ₇ NO ₃)	26.25

Amino Acids	mg/L
L-Threonine(C ₄ H ₉ NO ₃)	53.45
L-Tryptophan(C ₁₁ H ₁₂ N ₂ O ₂)	9.02
L-Tyrosine, Disodium,Dihydrate(C ₉ H ₉ NO ₃ Na ₂ .2H ₂ O)	55.79
L-Valine(C ₅ H ₁₁ NO ₂)	52.85

Inorganic Salts	mg/L
Calcium Chloride, Anhydrous (CaCl ₂)	116.60
Cupric Sulfate, Pentahydrate(CuSO ₄ .5H ₂ O)	0.0013
Ferric Nitrate, Nonahydrate(Fe(NO ₃) ₃ .9H ₂ O)	0.05
Ferrous Sulfate, Heptahydrate(FeSO ₄ .7H ₂ O)	0.417
Magnesium Chloride, Anhydrous(MgCl ₂)	28.61
Magnesium Sulfate, Anhydrous(MgSO ₄)	48.93
Potassium Chloride(KCl)	311.80
Sodium Bicarbonate(NaHCO ₃)	1200.00
Sodium Chloride(NaCl)	6995.50
Sodium Phosphate, Dibasic, Anhydrous(Na ₂ HPO ₄)	70.96
Sodium Phosphate, Monobasic(NaH ₂ PO ₄ .H ₂ O)	62.50
Zinc Sulfate, Heptahydrate(ZnSO ₄ .7H ₂ O)	0.432

Vitamins	mg/L
Biotin(C ₁₀ H ₁₆ N ₂ O ₃ S)	0.0035
Choline Chloride(C ₅ H ₁₄ ClNO)	8.98
D-Calcium Pantothenate(C ₁₈ H ₃₂ CaN ₄ O ₁₀)	2.24
Folic Acid(C ₁₉ H ₁₉ N ₇ O ₆)	2.65
Myo-Inositol(C ₆ H ₁₂ O ₆)	12.60
Niacinamide(C ₆ H ₆ N ₂ O)	2.02
Pyridoxine, Hydrochloride(C ₈ H ₁₁ NO ₃ .HCl)	2.031
Riboflavin(C ₁₇ H ₂₀ N ₄ O ₆)	0.219
Thiamine, Hydrochloride(C ₁₂ H ₁₇ ClN ₄ OS.HCl)	2.17
Vitamin B12(C ₆₃ H ₈₈ CoN ₁₄ O ₁₄ P)	0.68

★ Formulation

Other Components	mg/L
D-Glucose($C_6H_{12}O_6$)	3151.00
HEPES($C_8H_{18}N_2O_5S$)	3574.50
Xyloxanthine, Sodium($C_5H_3N_4O.Na$)	2.39
Linoleic Acid($C_{18}H_{32}O_2$)	0.042
Lipoic Acid(DL-Thiolic Acid)($C_8H_{14}O_2S_2$)	0.105
Phenol Red, Sodium Salt($C_{19}H_{13}NaO_5S$)	8.10
Putrescine, Dihydrochloride($C_4H_{12}N_2.2HCl$)	0.081
Sodium Pyruvate($C_3H_5NaO_3$)	55.00
Thymidine($C_{10}H_{14}N_2O_5$)	0.365