

★ 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, Monohydrate(C ₃ 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 ₁₁ N ₂ O ₂ .HCl) | 91.25 |
| L-Methionine(C ₅ H ₁₁ NO ₂ S) | 17.24 |
| L-Phenylalanine(C ₉ H ₉ NO ₂) | 35.48 |
| L-Proline(C ₅ H ₉ NO ₂) | 17.25 |

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|--|-------|
| L-Serine(C ₃ H ₇ NO ₂) | 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 ₆ 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 ₈ 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 |
| Xypoxanthine, Sodium($C_5H_3N_4O \cdot Na$) | 2.39 |
| Linoleic Acid($C_{18}H_{32}O_2$) | 0.042 |
| Lipoic Acid(DL-Thioctic Acid)($C_8H_{14}O_2S_2$) | 0.105 |
| Phenol Red, Sodium Salt($C_{19}H_{13}NaO_5S$) | 8.10 |
| Putrescine, Dihydrochloride($C_4H_{12}N_2 \cdot 2HCl$) | 0.081 |
| Sodium Pyruvate($C_3H_5NaO_3$) | 55.00 |
| Thymidine($C_{10}H_{14}N_2O_5$) | 0.365 |