

Media Formulation

DMEM/F-12 (1:1) Medium



Version 2.0
Released Date: February 4, 2026

Cat. No. TM510

Store at 2-8°C, protect from light.
Shelf life: 18 months from date of manufacture.

Component	Molecular Weight (g/mol)	Concentration (mg/L)	Concentration (mM)
Amino Acids			
Glycine	75.0	18.75	0.250
L-Alanine	89.0	4.45	0.050
L-Arginine hydrochloride	211.0	147.50	0.700
L-Asparagine- H ₂ O	150.0	7.50	0.050
L-Aspartic acid	133.0	6.65	0.050
L-Cysteine hydrochloride- H ₂ O	176.0	17.56	0.100
L-Cystine 2HCl	313.0	31.29	0.100
L-Glutamic Acid	147.0	7.35	0.050
L-Glutamine	146.0	365.00	2.500
L-Histidine hydrochloride-H ₂ O	210.0	31.48	0.150
L-Isoleucine	131.0	54.47	0.416
L-Leucine	131.0	59.05	0.451
L-Lysine hydrochloride	183.0	91.25	0.500
L-Methionine	149.0	17.24	0.116
L-Phenylalanine	165.0	35.48	0.215
L-Proline	115.0	17.25	0.150
L-Serine	105.0	26.25	0.250
L-Threonine	119.0	53.45	0.450
L-Tryptophan	204.0	9.02	0.044
L-Tyrosine disodium salt dihydrate	261.0	55.79	0.214
L-Valine	117.0	52.85	0.452
Vitamins			
Biotin	244.0	3.5x10 ⁻³	1.43x10 ⁻⁵
Choline chloride	140.0	8.98	0.064
D-Calcium pantothenate	477.0	2.24	0.005
Folic Acid	441.0	2.65	0.006
Niacinamide	122.0	2.02	0.017

Pyridoxine hydrochloride	206.0	2.01	0.010
Riboflavin	376.0	0.22	5.82x10 ⁻⁴
Thiamine hydrochloride	337.0	2.17	0.006
Vitamin B12	1355.0	0.68	5.02x10 ⁻⁴
i-Inositol	180.0	12.6	0.070
Inorganic Salts			
Calcium Chloride (anhyd.)	111.0	116.6	1.050
Cupric Sulfate (CuSO ₄ ·5H ₂ O)	250.0	0.0013	5.20x10 ⁻⁶
Ferric Nitrate (Fe(NO ₃) ₃ ·9H ₂ O)	404.0	0.05	1.24x10 ⁻⁴
Ferric Sulfate (FeSO ₄ ·7H ₂ O)	278.0	0.42	0.002
Magnesium Chloride (anhyd.)	95.0	28.64	0.301
Magnesium Sulfate (MgSO ₄)(anhyd.)	120.0	48.84	0.407
Potassium Chloride (KCl)	75.0	311.8	4.157
Sodium Bicarbonate (NaHCO ₃)	84.0	2438.0	29.020
Sodium Chloride (NaCl)	58.0	6995.5	120.612
Sodium Phosphate dibasic (Na ₂ HPO ₄) anhydrous	142.0	71.02	0.500
Sodium Phosphate monobasic (NaH ₂ PO ₄ ·H ₂ O)	138.0	62.5	0.453
Zinc sulfate (ZnSO ₄ ·7H ₂ O)	288.0	0.432	0.002
Other Components			
HEPES (C ₈ H ₁₈ N ₂ O ₄ S)	238.3	3574.5	15.000
D-Glucose (Dextrose)	180.0	3151.0	17.506
Hypoxanthine Na	159.0	2.39	0.015
Linoleic Acid	280.0	0.04	1.50x10 ⁻⁴
Lipoic Acid	206.0	0.11	5.10x10 ⁻⁴
Phenol Red	376.4	8.1	0.022
Putrescine 2HCl	161.0	0.08	5.03x10 ⁻⁴
Sodium Pyruvate	110.0	55.0	0.5
Thymidine	242.0	0.37	0.002

Special media modification is available as a Custom Media Service; please contact a technical representative at technical@abmgood.com for more details.