



Comparative Formulation

DMEM / Ham's F-12

 Powdered Media	DFP18	DFP19
Amino Acids	mg/L	mg/L
Glycine	18.7500	18.7500
L-Alanine	4.4500	4.4500
L-Arginine, Hydrochloride	147.5000	147.5000
L-Asparagine, Monohydrate	7.5000	7.5000
L-Aspartic Acid	6.6500	6.6500
L-Cysteine, Hydrochloride, Monohydrate	17.5600	17.5600
L-Cystine, Dihydrochloride	31.2900	31.2900
L-Glutamic Acid	7.3500	7.3500
L-Glutamine	365.0000	365.0000
L-Histidine, Hydrochloride, Monohydrate	31.4800	31.4800
L-Isoleucine	54.4700	54.4700
L-Leucine	59.0500	59.0500
L-Lysine, Hydrochloride	91.2500	91.2500
L-Methionine	17.2400	17.2400
L-Phenylalanine	35.4800	35.4800
L-Proline	17.2500	17.2500
L-Serine	26.2500	26.2500
L-Threonine	53.4500	53.4500
L-Tryptophan	9.0200	9.0200
L-Tyrosine, Disodium, Dihydrate	55.7900	55.7900
L-Valine	52.8500	52.8500

 Powdered Media	DFP18	DFP19
Inorganic Salts	mg/L	mg/L
Calcium Chloride, Anhydrous	116.6000	116.6000
Cupric Sulfate, Pentahydrate	0.0010	0.0010
Ferric Nitrate, Nonahydrate	0.0500	0.0500
Ferrous Sulfate, Heptahydrate	0.4170	0.4170
Magnesium Chloride, Anhydrous	28.6100	28.6100
Magnesium Sulfate, Anhydrous	48.9300	48.9300
Potassium Chloride	311.8000	311.8000
Sodium Chloride	6995.5000	6995.5000
Sodium Phosphate Dibasic, Anhydrous	70.9600	70.9600
Sodium Phosphate, Monobasic, Monohydrate	62.5000	62.5000
Zinc Sulfate, Heptahydrate	0.4320	0.4320
Other Components	mg/L	mg/L
D-Glucose, Anhydrous	3151.0000	3151.0000
HEPES	3574.5000	
Hypoxanthine, Sodium	2.3900	2.3900
Linoleic Acid	0.0420	0.0420
Lipoic Acid (DL-Thiolic Acid)	0.1050	0.1050
Phenol Red, Sodium Salt	8.1000	8.1000
Putrescine, Dihydrochloride	0.0810	0.0810
Pyruvic Acid, Sodium Salt	55.0000	55.0000
Thymidine	0.3650	0.3650



Powdered Media

DFP18

DFP19

Vitamins

mg/L

mg/L

Biotin	0.0030	0.0030
Choline Chloride	8.9800	8.9800
D-Calcium Pantothenate	2.2400	2.2400
Folic Acid	2.6500	2.6500
Myo-Inositol	12.6000	12.6000
Niacinamide	2.0200	2.0200
Pyridoxine, Hydrochloride	2.0310	2.0310
Riboflavin	0.2190	0.2190
Thiamine, Hydrochloride	2.1700	2.1700
Vitamin B12	0.6800	0.6800



Liquid Media

DFL13

DFL14

DFL15

Amino Acids

mg/L

mg/L

mg/L

Glycine	18.7500	18.7500	18.7500
L-Alanine	4.4500	4.4500	4.4500
L-Arginine, Hydrochloride	147.5000	147.5000	147.5000
L-Asparagine, Monohydrate	7.5000	7.5000	7.5000
L-Aspartic Acid	6.6500	6.6500	6.6500
L-Cysteine, Hydrochloride, Monohydrate	17.5600	17.5600	17.5600
L-Cystine, Dihydrochloride	31.2900	31.2900	31.2900
L-Glutamic Acid	7.3500	7.3500	7.3500
L-Glutamine	365.0000	365.0000	365.0000
L-Histidine, Hydrochloride, Monohydrate	31.4800	31.4800	31.4800
L-Isoleucine	54.4700	54.4700	54.4700
L-Leucine	59.0500	59.0500	59.0500
L-Lysine, Hydrochloride	91.2500	91.2500	91.2500
L-Methionine	17.2400	17.2400	17.2400
L-Phenylalanine	35.4800	35.4800	35.4800
L-Proline	17.2500	17.2500	17.2500
L-Serine	26.2500	26.2500	26.2500
L-Threonine	53.4500	53.4500	53.4500
L-Tryptophan	9.0200	9.0200	9.0200
L-Tyrosine, Disodium, Dihydrate	55.7900	55.7900	55.7900
L-Valine	52.8500	52.8500	52.8500



Liquid Media

DFL13

DFL14

DFL15

Inorganic Salts

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mg/L

mg/L

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Ferric Nitrate, Nonahydrate	0.0500	0.0500	0.0500
Ferrous Sulfate, Heptahydrate	0.4170	0.4170	0.4170
Magnesium Chloride, Anhydrous	28.6100	28.6100	28.6100
Magnesium Sulfate, Anhydrous	48.9300	48.9300	48.9300
Potassium Chloride	311.8000	311.8000	311.8000
Sodium Bicarbonate	1200.0000	1200.0000	2438.0000
Sodium Chloride	6995.5000	6995.5000	6995.5000
Sodium Phosphate Dibasic, Anhydrous	70.9600	70.9600	70.9600
Sodium Phosphate, Monobasic, Monohydrate	62.5000	62.5000	62.5000
Zinc Sulfate, Heptahydrate	0.4320	0.4320	0.4320

Other Components

mg/L

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Lipoic Acid (DL-Thiolic Acid)	0.1050	0.1050	0.1050
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Putrescine, Dihydrochloride	0.0810	0.0810	0.0810
Pyruvic Acid, Sodium Salt	55.0000	55.0000	55.0000
Thymidine	0.3650	0.3650	0.3650



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Folic Acid	2.6500	2.6500	2.6500
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Niacinamide	2.0200	2.0200	2.0200
Pyridoxine, Hydrochloride	2.0310	2.0310	2.0310
Riboflavin	0.2190	0.2190	0.2190
Thiamine, Hydrochloride	2.1700	2.1700	2.1700
Vitamin B12	0.6800	0.6800	0.6800