

DMEM (Dulbecco’s Modified Eagle’s Medium)

Cat. No.	50-003	58-011	58-012	58-014	58-015
Description	Powder	Powder	Powder	Powder	Powder
Units	mg/L	mg/L	mg/L	mg/L	mg/L
Components					
Inorganic Salts					
CaCl ₂ • 2H ₂ O	265.00	265.00	265.00	265.00	265.00
Fe(NO ₃) ₃ • 9H ₂ O	0.10	0.10	0.10	0.10	0.10
KCl	400.00	400.00	400.00	400.00	400.00
MgSO ₄ (anhydrous)	97.67	97.67	97.67	97.67	97.67
NaCl	6,400.00	6,400.00	6,400.00	6,400.00	4,400.00
NaH ₂ PO ₄ • H ₂ O	125.00	125.00	125.00	125.00	125.00
Amino Acids					
L-Arginine • HCl	84.00	84.00	84.00	84.00	84.00
L-Cystine • 2HCl	63.00	63.00	63.00	63.00	63.00
L-glutamine	584.00	584.00	584.00	584.00	584.00
Glycine	30.00	30.00	30.00	30.00	30.00
L-Histidine • HCl • H ₂ O	42.00	42.00	42.00	42.00	42.00
L-Isoleucine	105.00	105.00	105.00	105.00	105.00
L-Leucine	105.00	105.00	105.00	105.00	105.00
L-Lysine • HCl	146.00	146.00	146.00	146.00	146.00
L-Methionine	30.00	30.00	30.00	30.00	30.00
L-Phenylalanine	66.00	66.00	66.00	66.00	66.00
L-Serine	42.00	42.00	42.00	42.00	42.00
L-Threonine	95.00	95.00	95.00	95.00	95.00
L-Tryptophan	16.00	16.00	16.00	16.00	16.00
L-Tyrosine • 2Na • 2H ₂ O	104.00	104.00	104.00	104.00	104.00
L-Valine	94.00	94.00	94.00	94.00	94.00
Vitamins					
D-Calcium Pantothenate	4.00	4.00	4.00	4.00	4.00
Choline Chloride	4.00	4.00	4.00	4.00	4.00
Folic Acid	4.00	4.00	4.00	4.00	4.00
i-Inositol	7.20	7.20	7.20	7.20	7.20
Niacinamide	4.00	4.00	4.00	4.00	4.00
Pyridoxine • HCl	4.00	4.00	4.00	4.00	4.00
Riboflavin	0.40	0.40	0.40	0.40	0.40
Thiamine • HCl	4.00	4.00	4.00	4.00	4.00
Other					
D-Glucose	4,500.00	1,000.00	4,500.00	4,500.00	4,500.00
HEPES	—	—	—	—	5958.00
Phenol Red	15.00	15.00	15.00	—	15.00
Sodium pyruvate	110.00	110.00	—	—	—

“—” indicates not present

DMEM/Ham’s F-12 50/50 Mix

Cat. No.	58-021	58-022
Description	Powder	Powder
Units	mg/L	mg/L
Components		
Inorganic Salts		
CaCl ₂ • 2H ₂ O	154.40	154.40
CuSO ₄ • 5H ₂ O	0.0014	0.0014
Fe(NO ₃) ₃ • 9H ₂ O	0.05	0.05
Fe SO ₄ • 7H ₂ O	0.417	0.417
KCl	311.80	311.80
MgSO ₄ (anhydrous)	48.84	48.84
MgCl ₂ • 6H ₂ O	61.10	61.10
NaCl	6,999.5	6,999.5
Na ₂ HPO ₄ (anhydrous)	71.00	71.00
NaH ₂ PO ₄ • H ₂ O	62.56	62.56
ZnSO ₄ • 7H ₂ O	0.432	0.432
Amino Acids		
Glycine	18.75	18.75
L-Alanine	4.45	4.45
L-Arginine • HCl	147.5	147.5
L-Asparagine	7.50	7.50
L-Aspartate	6.65	6.65
L-Cystine • 2HCl	31.29	31.29
L-Cysteine • HCl • H ₂ O	17.56	17.56
L-Glutamate	7.35	7.35
L-glutamine	365.00	365.00
L-Histidine • HCl • H ₂ O	31.48	31.48
L-Isoleucine	54.47	54.47
L-Leucine	59.05	59.05
L-lysine • HCl	91.25	91.25
L-Methionine	17.24	17.24
L-Phenylalanine	35.48	35.48
L-Proline	17.25	17.25
L-Serine	26.25	26.25
L-Threonine	53.45	53.45
L-Tryptophan	9.02	9.02
L-Tyrosine • 2Na • 2H ₂ O	55.79	55.79
L-Valine	52.85	52.85

Cat. No.	58-021	58-022
Description	Powder	Powder
Units	mg/L	mg/L
Components		
Vitamins		
Cyanocobalamin	0.68	0.68
Choline Chloride	8.98	8.98
D-Biotin	0.0035	0.0035
D-Calcium Pantothenate	2.24	2.24
Folic Acid	2.65	2.65
i-Inositol	12.60	12.60
Niacinamide	2.02	2.02
Pyridoxine • HCl	2.00	2.00
Pyridoxine • HCl	0.031	0.031
Riboflavin	0.219	0.219
Thiamine • HCl	2.17	2.17
Other		
D-Glucose	3,151.00	3,151.00
HEPES	3,574.50	–
Hypoxanthine	2.00	2.00
Linoleic Acid	0.042	0.042
Lipoic Acid	0.105	0.105
Phenol Red • Na	8.10	8.10
Putrescine • 2HCl	0.081	0.081
Sodium Pyruvate	55.00	55.00
Thymidine	0.365	0.365

“–” indicates not present

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Minimum Essential Medium (MEM)

Cat. No.	50-010	50-011	51-010	58-002	58-003	58-005	58-007	58-008	58-009
Description	Powder	Powder	Powder	Powder	Powder	Powder	Powder	Powder	Powder
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Components									
Inorganic Salts									
CaCl ₂ • 2H ₂ O	265.00	265.00	265.00	185.40		185.40	–	265.00	265.00
KCl	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00
KH ₂ PO ₄ (anhydrous)	–	–	–	60.00	–	60.00	–	–	–
NaCl	6,800.00	6,800.00	6,800.00	8,000.00	6,800.00	8,000.00	6,800.00	6,800.00	6,800.00
MgSO ₄ (anhydrous)	97.67	97.67	97.67	97.67	97.67	97.67	97.67	97.67	97.67
Na ₂ HPO ₄ (anhydrous)	–	–	–	47.88	–	47.88	–	–	–
NaH ₂ PO ₄ • H ₂ O	140.00	140.00	140.00	–	140.00	–	140.00	140.00	–
Amino Acids									
L-Alanine	–	8.90	–	–	–	8.90	–	–	–
L-Arginine • HCl	126.64	126.00	126.00	126.00	126.00	126.00	126.00	126.00	126.00
L-Aspartate	–	13.30	–	–	–	13.30	–	–	–
L-Asparagine	–	15.00	–	–	–	15.00	–	–	–
L-Cystine • 2HCl	31.00	31.29	31.28	31.29	31.29	31.29	31.00	31.29	31.29
L-Glutamate	–	14.70	–	–	–	14.70	–	–	–
L-glutamine	292.00	292.00	–	292.00	292.00	292.00	–	292.00	292.00
Glycine	–	7.50	–	–	–	7.50	–	–	–
L-Cysteine • HCl • H ₂ O	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00
L-Isoleucine	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00
L-Leucine	52.00	52.00	52.00	52.00	52.00	52.00	52.00	–	52.00
L-lysine • HCl	73.00	72.50	72.50	73.00	73.00	72.50	73.00	–	73.00
L-Methionine	15.00	15.00	15.00	15.00	15.00	15.00	15.00	–	15.00
L-Phenylalanine	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00
L-Proline	–	11.50	–	–	–	11.50	–	–	–
L-Serine	–	10.50	–	–	–	10.50	–	–	–
L-Threonine	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00
L-Tryptophan	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
L-Tyrosine • 2Na • 2H ₂ O	52.00	51.90	36.00	52.00	52.00	52.00	36.00	52.00	52.00
L-Valine	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00
Vitamins									
Choline Chloride	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
D-Biotin	–	–	0.02	–	–	–	–	–	–
D-Calcium Pantothenate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Folic Acid	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Inositol	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Nicotinamide	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Pyridoxine • HCl	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Riboflavin	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Thiamine • HCl	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Other									
D-Glucose	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Phenol Red	10.00	10.00	6.00	10.00	10.00	10.00	6.00	10.00	10.00
Sodium succinate • 6H ₂ O	–	–	100.00	–	–	–	100.00	–	–
Succinic Acid	–	–	75.00	–	–	–	75.00	–	–

“–” indicates not present

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M199 (Medium 199)

Cat. No.	58-031	58-032
Description	Powder	Powder
Units	mg/L	mg/L
Components		
Inorganic Salts		
CaCl ₂ • 2H ₂ O	265.00	185.40
Fe(NO ₃) ₃ • 9H ₂ O	0.70	0.70
KCl	400.00	400.00
KH ₂ PO ₄ (anhydrous)	—	60.00
MgSO ₄ (anhydrous)	97.67	97.67
Na ₂ HPO ₄ (anhydrous)	—	—
NaOAc	50.00	50.00
NaCl	6,800.00	8,000.00
NaH ₂ PO ₄ • H ₂ O	140.00	—
Amino Acids		
Cysteine • HCl • H ₂ O	0.110	0.110
Glycine	50.00	50.00
L-Alanine	25.00	25.00
L-Arginine • HCl	70.00	70.00
L-Aspartate	30.00	30.00
L-Cystine • 2HCl	26.00	26.00
L-Glutamic Acid	75.00	75.00
L-glutamine	100.00	100.00
L-Histidine •HCl • H ₂ O	21.88	21.88
L-Hydroxyproline	10.00	10.00
L-Isoleucine	40.00	40.00
L-Leucine	60.00	60.00
L-lysine • HCl	70.00	70.00
L-Methionine	15.00	15.00
L-Phenylalanine	25.00	25.00
L-Proline	40.00	40.00
L-Serine	25.00	25.00
L-Threonine	30.00	30.00
L-Tryptophan	10.00	10.00
L-Tyrosine • 2Na • 2H ₂ O	58.00	58.00
L-Valine	25.00	25.00

Cat. No.	58-031	58-032
Description	Powder	Powder
Units	mg/L	mg/L
Components		
Vitamins		
4-Aminobenzoic Acid	0.05	0.05
Alpha-tocopherol	0.01	0.01
Ascorbic Acid	0.05	0.05
Choline Chloride	0.50	0.50
D-Biotin	0.01	0.01
D-Calcium Pantothenate	0.01	0.01
Ergocalciferol	0.10	0.10
Folic Acid	0.02	0.02
i-Inositol	0.05	0.05
Menadione	0.01	0.01
Niacin	0.025	0.025
Niacinamide	0.025	0.025
Pyridoxine • HCl	0.025	0.025
Pyridoxal phosphate • H ₂ O	0.025	0.025
Riboflavin	0.01	0.01
Thiamine • HCl	0.01	0.01
Vitamin A Acetate	0.14	0.14
Other		
2D-Deoxyribose	0.50	0.50
Adenine Sulfate	10.00	10.00
AMP	0.20	0.20
Cholesterol	0.20	0.20
D-Glucose	1,000.00	1,000.00
D-Ribose	0.50	0.50
Glutathione (Reduced)	0.05	0.05
Guanidine • HCl	0.30	0.30
Hypoxanthine	0.30	0.30
Na ₂ ATP	1.00	1.00
Phenol Red • Na	20.00	20.00
Tween 80	10.00	10.00
Xanthine	0.30	0.30
Thymidine	0.30	0.30
Uracil	0.30	0.30

“—” indicates not present

Cat. No.	50-020	58-042	58-043	58-044
Description	Powder	Powder	Powder	Powder
Units	mg/L	mg/L	mg/L	mg/L
Components				
Inorganic Salts				
Ca(NO ₃) ₂ • 4H ₂ O	100.00	100.00	100.00	100.00
KCl	400.00	400.00	400.00	400.00
MgSO ₄ (anhydrous)	48.84	48.84	48.84	48.84
Na ₂ HPO ₄ (anhydrous)	–	–	–	–
NaCl	6,000.00	6,000.00	6,000.00	5,850.00
Amino Acids				
Glycine	10.00	10.00	10.00	10.00
L-Arginine • HCl	241.30	241.30	241.30	241.30
L-Asparagine	50.00	50.00	50.00	50.00
L-Aspartate	20.00	20.00	20.00	20.00
L-Cystine • 2HCl	65.00	65.00	65.00	65.00
L-Glutamic Acid	20.00	20.00	20.00	20.00
L-glutamine	300.00	300.00	300.00	300.00
L-Histidine • HCl • H ₂ O	20.27	20.27	20.27	20.27
L-Hydroxyproline	20.00	20.00	20.00	20.00
L-Isoleucine	50.00	50.00	50.00	50.00
L-Leucine	50.00	50.00	50.00	50.00
L-lysine • HCl	40.00	40.00	40.00	40.00
L-Methionine	15.00	15.00	15.00	15.00
L-Phenylalanine	15.00	15.00	15.00	15.00
L-Proline	20.00	20.00	20.00	20.00
L-Serine	30.00	30.00	30.00	30.00
L-Threonine	20.00	20.00	20.00	20.00
L-Tryptophan	5.00	5.00	5.00	5.00
L-Tyrosine • 2Na • 2H ₂ O	29.00	29.00	29.00	29.00
L-Valine	20.00	20.00	20.00	20.00
Vitamins				
4-Aminobenzoic Acid	1.00	1.00	1.00	1.00
Choline Chloride	3.00	3.00	3.00	3.00
Cyanocobalamin	0.005	0.005	0.005	0.005
D-Biotin	0.20	0.20	0.20	0.20
D-Calcium Pantothenate	0.25	0.25	0.25	0.25
Folic Acid	1.00	1.00	1.00	1.00
i-Inositol	35.00	35.00	35.00	35.00
Niacinamide	1.00	1.00	1.00	1.00
Pyridoxine • HCl	1.00	1.00	1.00	1.00
Riboflavin	1.00	1.00	1.00	1.00
Thiamine • HCl	0.20	0.20	0.20	0.20
Other				
D-Glucose	2,000.00	2,000.00	2,000.00	2,000.00
HEPES	–	–	–	5957.50
L-Glutathione (Reduced)	1.00	1.00	1.00	1.00
Phenol Red	–	–	–	5.00

“–” indicates not present